MasterFormat® Numbers & Titles
April 2012

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  14 08 10  Commissioning of Dumbwaiters
  14 08 20  Commissioning of Elevators
  14 08 30  Commissioning of Escalators and Moving Walks
  14 08 40  Commissioning of Lifts
  14 08 70  Commissioning of Turntables
  14 08 80  Commissioning of Scaffolding
14 10 00  Dumbwaiters
  14 11 00  Manual Dumbwaiters
  14 12 00  Electric Dumbwaiters
  14 14 00  Hydraulic Dumbwaiters
14 20 00  Elevators
  14 21 00  Electric Traction Elevators
   14 21 13  Electric Traction Freight Elevators
   14 21 23  Electric Traction Passenger Elevators
   14 21 23.13 Machine Room Electric Traction Passenger Elevators
   14 21 23.16 Machine Room-Less Electric Traction Passenger Elevators
   14 21 33  Electric Traction Residential Elevators
   14 21 43  Electric Traction Service Elevators
  14 24 00  Hydraulic Elevators
   14 24 13  Hydraulic Freight Elevators
   14 24 23  Hydraulic Passenger Elevators
   14 24 33  Hydraulic Residential Elevators
14 24 43 | Hydraulic Service Elevators
14 26 00 | Limited-Use/Limited-Application Elevators
14 27 00 | Custom Elevator Cabs and Doors
14 27 13 | Custom Elevator Cab Finishes
14 27 16 | Custom Elevator Doors
14 28 00 | Elevator Equipment and Controls
14 28 16 | Elevator Controls
14 28 19 | Elevator Equipment
14 28 19.13 | Elevator Safety Equipment
14 28 19.16 | Elevator Hoistway Equipment
14 30 00 | Escalators and Moving Walks
14 31 00 | Escalators
14 32 00 | Moving Walks
14 33 00 | Moving Ramps
14 33 13 | Motorized Ramps
14 33 16 | Powered Ramps
14 40 00 | Lifts
14 41 00 | People Lifts
14 41 13 | Counterbalanced People Lifts
14 41 16 | Endless-Belt People Lifts
14 42 00 | Wheelchair Lifts
14 42 13 | Inclined Wheelchair Lifts
14 42 16 | Vertical Wheelchair Lifts
14 43 00 | Platform Lifts
14 43 13 | Orchestra Lifts
14 43 16 | Stage Lifts
14 44 00 | Sidewalk Lifts
14 45 00 | Vehicle Lifts
14 70 00 | Turntables
14 71 00 | Industrial Turntables
14 71 11 | Vehicle Turntables
14 72 00 | Hospitality Turntables
14 72 25 | Restaurant Turntables
14 73 00 | Exhibit Turntables
14 73 59 | Display Turntables
14 74 00 | Entertainment Turntables
14 74 61 | Stage Turntables
14 80 00 | Scaffolding
14 81 00 | Suspended Scaffolding
14 81 13 | Beam Scaffolding
14 81 16 | Carriage Scaffolding
14 81 19 | Hook Scaffolding
14 82 00 | Rope Climbers
14 82 13 | Manual Rope Climbers
14 82 16  Powered Rope Climbers
14 83 00  Elevating Platforms
   14 83 13  Telescoping Platform Lifts
   14 83 13.13 Electric and Battery Telescoping Platform Lifts
   14 83 13.16 Pneumatic Telescoping Platform Lifts
   14 83 16  Scissor Lift Platforms
   14 83 19  Multi-Axis Platform Lifts
14 84 00  Powered Scaffolding
   14 84 13  Window Washing Scaffolding
   14 84 23  Window Washing Hoists
14 90 00  Other Conveying Equipment
14 91 00  Facility Chutes
   14 91 13  Coal Chutes
   14 91 23  Escape Chutes
   14 91 33  Laundry and Linen Chutes
   14 91 82  Trash Chutes
14 92 00  Pneumatic Tube Systems
14 93 00  Slide Pole Systems
   14 93 13  Firehouse Slide Poles
21 00 00 Fire Suppression

21 01 00 Operation and Maintenance of Fire Suppression
   21 01 10 Operation and Maintenance of Water-Based Fire-Suppression Systems
   21 01 20 Operation and Maintenance of Fire-Extinguishing Systems
   21 01 30 Operation and Maintenance of Fire-Suppression Equipment

21 05 00 Common Work Results for Fire Suppression
   21 05 13 Common Motor Requirements for Fire-Suppression Equipment
   21 05 16 Expansion Fittings and Loops for Fire-Suppression Piping
   21 05 19 Meters and Gages for Fire-Suppression Systems
   21 05 23 General-Duty Valves for Water-Based Fire-Suppression Piping
   21 05 29 Hangers and Supports for Fire-Suppression Piping and Equipment
   21 05 33 Heat Tracing for Fire-Suppression Piping
   21 05 48 Vibration and Seismic Controls for Fire-Suppression Piping and Equipment
   21 05 53 Identification for Fire-Suppression Piping and Equipment

21 06 00 Schedules for Fire Suppression
   21 06 10 Schedules for Water-Based Fire-Suppression Systems
   21 06 20 Schedules for Fire-Extinguishing Systems
   21 06 30 Schedules for Fire-Suppression Equipment

21 07 00 Fire Suppression Systems Insulation
   21 07 16 Fire-Suppression Equipment Insulation
   21 07 19 Fire-Suppression Piping Insulation

21 08 00 Commissioning of Fire Suppression

21 09 00 Instrumentation and Control for Fire-Suppression Systems

21 10 00 Water-Based Fire-Suppression Systems
   21 11 00 Facility Fire-Suppression Water-Service Piping
      21 11 16 Facility Fire Hydrants
      21 11 19 Fire-Department Connections
   21 12 00 Fire-Suppression Standpipes
      21 12 13 Fire-Suppression Hoses and Nozzles
      21 12 16 Fire-Suppression Hose Reels
      21 12 19 Fire-Suppression Hose Racks
      21 12 23 Fire-Suppression Hose Valves
   21 13 00 Fire-Suppression Sprinkler Systems
      21 13 13 Wet-Pipe Sprinkler Systems
      21 13 16 Dry-Pipe Sprinkler Systems
      21 13 19 Preaction Sprinkler Systems
      21 13 23 Combined Dry-Pipe and Preaction Sprinkler Systems
      21 13 26 Deluge Fire-Suppression Sprinkler Systems
      21 13 29 Water Spray Fixed Systems
      21 13 36 Antifreeze Sprinkler Systems
      21 13 39 Foam-Water Systems

21 16 00 Fire-Suppression Pressure Maintenance Pumps

21 20 00 Fire-Extinguishing Systems
   21 21 00 Carbon-Dioxide Fire-Extinguishing Systems
21 21 13 Carbon-Dioxide Fire-Extinguishing Piping
21 21 16 Carbon-Dioxide Fire-Extinguishing Equipment

21 22 00 **Clean-Agent Fire-Extinguishing Systems**
21 22 13 Clean-Agent Fire-Extinguishing Piping
21 22 16 Clean-Agent Fire-Extinguishing Equipment

21 23 00 **Wet-Chemical Fire-Extinguishing Systems**
21 23 13 Wet-Chemical Fire-Extinguishing Piping
21 23 16 Wet-Chemical Fire-Extinguishing Equipment

21 24 00 **Dry-Chemical Fire-Extinguishing Systems**
21 24 13 Dry-Chemical Fire-Extinguishing Piping
21 24 16 Dry-Chemical Fire-Extinguishing Equipment

21 30 00 **Fire Pumps**

21 31 00 **Centrifugal Fire Pumps**
21 31 13 Electric-Drive, Centrifugal Fire Pumps
21 31 16 Diesel-Drive, Centrifugal Fire Pumps

21 32 00 **Vertical-Turbine Fire Pumps**
21 32 13 Electric-Drive, Vertical-Turbine Fire Pumps
21 32 16 Diesel-Drive, Vertical-Turbine Fire Pumps

21 33 00 **Positive-Displacement Fire Pumps**
21 33 13 Electric-Drive, Positive-Displacement Fire Pumps
21 33 16 Diesel-Drive, Positive-Displacement Fire Pumps

21 40 00 **Fire-Suppression Water Storage**

21 41 00 **Storage Tanks for Fire-Suppression Water**
21 41 13 Pressurized Storage Tanks for Fire-Suppression Water
21 41 16 Elevated Storage Tanks for Fire-Suppression Water
21 41 19 Roof-Mounted Storage Tanks for Fire-Suppression Water
21 41 23 Ground Suction Storage Tanks for Fire-Suppression Water
21 41 26 Underground Storage Tanks for Fire-Suppression Water
21 41 29 Storage Tanks for Fire-Suppression Water Additives
22 00 00 Plumbing

22 01 00 Operation and Maintenance of Plumbing
- 22 01 10 Operation and Maintenance of Plumbing Piping and Pumps
- 22 01 10.16 Video Piping Inspections
- 22 01 10.51 Plumbing Piping Cleaning
- 22 01 10.61 Plumbing Piping Repairs
- 22 01 10.62 Plumbing Piping Relining
- 22 01 30 Operation and Maintenance of Plumbing Equipment
- 22 01 40 Operation and Maintenance of Plumbing Fixtures
- 22 01 50 Operation and Maintenance of Pool and Fountain Plumbing Systems
- 22 01 60 Operation and Maintenance of Laboratory and Healthcare Systems

22 05 00 Common Work Results for Plumbing
- 22 05 13 Common Motor Requirements for Plumbing Equipment
- 22 05 16 Expansion Fittings and Loops for Plumbing Piping
- 22 05 19 Meters and Gages for Plumbing Piping
- 22 05 23 General-Duty Valves for Plumbing Piping
- 22 05 29 Hangers and Supports for Plumbing Piping and Equipment
- 22 05 33 Heat Tracing for Plumbing Piping
- 22 05 48 Vibration and Seismic Controls for Plumbing Piping and Equipment
- 22 05 53 Identification for Plumbing Piping and Equipment
- 22 05 73 Facility Drainage Manholes
- 22 05 76 Facility Drainage Piping Cleanouts

22 06 00 Schedules for Plumbing
- 22 06 10 Schedules for Plumbing Piping and Pumps
- 22 06 10.13 Plumbing Pump Schedule
- 22 06 12 Schedules for Facility Potable Water Storage
- 22 06 15 Schedules for General Service Compressed-Air Equipment
- 22 06 30 Schedules for Plumbing Equipment
- 22 06 30.13 Domestic Water Heater Schedule
- 22 06 40 Schedules for Plumbing Fixtures
- 22 06 40.13 Plumbing Fixture Schedule
- 22 06 50 Schedules for Pool and Fountain Plumbing Systems
- 22 06 60 Schedules for Laboratory and Healthcare Systems

22 07 00 Plumbing Insulation
- 22 07 16 Plumbing Equipment Insulation
- 22 07 19 Plumbing Piping Insulation

22 08 00 Commissioning of Plumbing

22 09 00 Instrumentation and Control for Plumbing

22 10 00 Plumbing Piping

22 11 00 Facility Water Distribution
- 22 11 13 Facility Water Distribution Piping
- 22 11 16 Domestic Water Piping
- 22 11 19 Domestic Water Piping Specialties
- 22 11 23 Domestic Water Pumps
- 22 11 23.13 Domestic-Water Packaged Booster Pumps
- 22 11 23.23 Close-Coupled, In-Line, Sealless Centrifugal Domestic-Water Pumps
- 22 11 23.26 Close-Coupled, Horizontally Mounted, In-Line Centrifugal Domestic-Water Pumps
- 22 11 23.29 Close-Coupled, Vertically Mounted, In-Line Centrifugal Domestic-Water Pumps

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22 11 23.33 Separately Coupled, In-Line Centrifugal Domestic-Water Pumps
22 11 23.36 Separately Coupled, Horizontally Mounted, In-Line Centrifugal Domestic-Water Pumps

**22 12 00 Facility Potable-Water Storage Tanks**
22 12 13 Facility Roof-Mounted, Potable-Water Storage Tanks
22 12 16 Facility Elevated, Potable-Water Storage Tanks
22 12 19 Facility Ground-Mounted, Potable-Water Storage Tanks
22 12 21 Facility Underground Potable-Water Storage Tanks
22 12 23 Facility Indoor Potable-Water Storage Tanks
22 12 23.13 Facility Steel, Indoor Potable-Water Storage Pressure Tanks
22 12 23.16 Facility Steel, Indoor Potable-Water Storage Non-Pressure Tanks
22 12 23.23 Facility Plastic, Indoor Potable-Water Storage Pressure Tanks
22 12 23.26 Facility Plastic, Indoor Potable-Water Storage Non-Pressure Tanks

**22 13 00 Facility Sanitary Sewerage**
22 13 13 Facility Sanitary Sewers
22 13 16 Sanitary Waste and Vent Piping
22 13 19 Sanitary Waste Piping Specialties
22 13 19.13 Sanitary Drains
22 13 19.23 Fats, Oils, and Grease Disposal Systems
22 13 19.26 Grease Removal Devices
22 13 19.33 Backwater Valves
22 13 19.36 Air-Admittance Valves
22 13 23 Sanitary Waste Interceptors
22 13 26 Sanitary Waste Separators
22 13 29 Sanitary Sewerage Pumps
22 13 29.13 Wet-Pit-Mounted, Vertical Sewerage Pumps
22 13 29.16 Submersible Sewerage Pumps
22 13 29.23 Sewerage Pump Reverse-Flow Assemblies
22 13 29.33 Sewerage Pump Basins and Pits
22 13 33 Packaged, Submersible Sewerage Pump Units
22 13 36 Packaged, Wastewater Pump Units
22 13 43 Facility Packaged Sewage Pumping Stations
22 13 43.13 Facility Dry-Well Packaged Sewage Pumping Stations
22 13 43.16 Facility Wet-Well Packaged Sewage Pumping Stations
22 13 53 Facility Septic Tanks
22 13 63 Facility Gray Water Tanks

**22 14 00 Facility Storm Drainage**
22 14 13 Facility Storm Drainage Piping
22 14 16 Rainwater Leaders
22 14 19 Sump Pump Discharge Piping
22 14 23 Storm Drainage Piping Specialties
22 14 26 Facility Storm Drains
22 14 26.13 Roof Drains
22 14 26.16 Facility Area Drains
22 14 26.19 Facility Trench Drains
22 14 29 Sump Pumps
22 14 29.13 Wet-Pit-Mounted, Vertical Sump Pumps
22 14 29.16 Submersible Sump Pumps
22 14 29.19 Sump-Pump Basins and Pits
22 14 33 Packaged, Pedestal Drainage Pump Units
22 14 36 Packaged, Submersible, Drainage Pump Units
22 14 53 Rainwater Storage Tanks
22 15 00 General Service Compressed-Air Systems
   22 15 13 General Service Compressed-Air Piping
   22 15 16 General Service Compressed-Air Valves
   22 15 19 General Service Packaged Air Compressors and Receivers
   22 15 19.13 General Service Packaged Reciprocating Air Compressors
   22 15 19.16 General Service Packaged Liquid-Ring Air Compressors
   22 15 19.19 General Service Packaged Rotary-Screw Air Compressors
   22 15 19.23 General Service Packaged Sliding-Vane Air Compressors

22 30 00 Plumbing Equipment

22 31 00 Domestic Water Softeners
   22 31 13 Residential Domestic Water Softeners
   22 31 16 Commercial Domestic Water Softeners

22 32 00 Domestic Water Filtration Equipment
   22 32 13 Domestic-Water Bag-Type Filters
   22 32 16 Domestic-Water Freestanding Cartridge Filters
   22 32 19 Domestic-Water Off-Floor Cartridge Filters
   22 32 23 Domestic-Water Carbon Filters
   22 32 26 Domestic-Water Sand Filters
   22 32 26.13 Domestic-Water Circulating Sand Filters
   22 32 26.16 Domestic-Water Multimedia Sand Filters
   22 32 26.19 Domestic-Water Greensand Filters

22 33 00 Electric Domestic Water Heaters
   22 33 13 Instantaneous Electric Domestic Water Heaters
   22 33 13.13 Flow-Control, Instantaneous Electric Domestic Water Heaters
   22 33 13.16 Thermostat-Control, Instantaneous Electric Domestic Water Heaters
   22 33 30 Residential, Electric Domestic Water Heaters
   22 33 30.13 Residential, Small-Capacity Electric Domestic Water Heaters
   22 33 30.16 Residential, Storage Electric Domestic Water Heaters
   22 33 30.23 Residential, Collector-to-Tank, Solar-Electric Domestic Water Heaters
   22 33 30.26 Residential, Collector-to-Tank, Heat-Exchanger-Coil, Solar-Electric Domestic Water Heaters
   22 33 33 Light-Commercial Electric Domestic Water Heaters
   22 33 36 Commercial Domestic Water Electric Booster Heaters
   22 33 36.13 Commercial Domestic Water Electric Booster Heaters
   22 33 36.16 Commercial Storage Electric Domestic Water Heaters

22 34 00 Fuel-Fired Domestic Water Heaters
   22 34 13 Instantaneous, Tankless, Gas Domestic Water Heaters
   22 34 30 Residential Gas Domestic Water Heaters
   22 34 30.13 Residential, Atmospheric, Gas Domestic Water Heaters
   22 34 30.16 Residential, Direct-Vent, Gas Domestic Water Heaters
   22 34 30.19 Residential, Power-Vent, Gas Domestic Water Heaters
   22 34 36 Commercial Gas Domestic Water Heaters
   22 34 36.13 Commercial, Atmospheric, Gas Domestic Water Heaters
   22 34 36.16 Commercial, Power-Burner, Gas Domestic Water Heaters
   22 34 36.19 Commercial, Power-Vent, Gas Domestic Water Heaters
   22 34 36.23 Commercial, High-Efficiency, Gas Domestic Water Heaters
   22 34 36.26 Commercial, Coil-Type, Finned-Tube, Gas Domestic Water Heaters
   22 34 36.29 Commercial, Grid-Type, Finned-Tube, Gas Domestic Water Heaters
   22 34 46 Oil-Fired Domestic Water Heaters
   22 34 46.13 Large-Capacity, Oil-Fired Domestic Water Heaters
   22 34 56 Dual-Fuel-Fired Domestic Water Heaters
22 35 00 Domestic Water Heat Exchangers
22 35 13 Instantaneous Domestic Water Heat Exchangers
22 35 13.13 Heating-Fluid-in-Coil, Instantaneous Domestic Water Heat Exchangers
22 35 13.16 Domestic-Water-in-Coil, Instantaneous Domestic Water Heat Exchangers
22 35 23 Circulating, Domestic Water Heat Exchangers
22 35 23.13 Circulating, Compact Domestic Water Heat Exchangers
22 35 23.16 Circulating, Storage Domestic Water Heat Exchangers
22 35 29 Noncirculating, Domestic Water Heat Exchangers
22 35 29.13 Noncirculating, Compact Domestic Water Heat Exchangers
22 35 29.16 Noncirculating, Storage Domestic Water Heat Exchangers
22 35 36 Domestic Water Brazed-Plate Heat Exchangers
22 35 39 Domestic Water Frame-and-Plate Heat Exchangers
22 35 43 Domestic Water Heat Reclaimers

22 40 00 Plumbing Fixtures
22 41 00 Residential Plumbing Fixtures
22 41 13 Residential Water Closets, Urinals, and Bidets
22 41 13.13 Residential Water Closets
22 41 13.16 Residential Urinals
22 41 13.19 Residential Bidets
22 41 16 Residential Lavatories and Sinks
22 41 16.13 Residential Lavatories
22 41 16.16 Residential Sinks
22 41 19 Residential Bathtubs
22 41 23 Residential Showers
22 41 26 Residential Disposers
22 41 36 Residential Laundry Trays
22 41 39 Residential Faucets, Supplies, and Trim

22 42 00 Commercial Plumbing Fixtures
22 42 13 Commercial Water Closets, Urinals, and Bidets
22 42 13.13 Commercial Water Closets
22 42 13.16 Commercial Urinals
22 42 16 Commercial Lavatories and Sinks
22 42 16.13 Commercial Lavatories
22 42 16.16 Commercial Sinks
22 42 19 Commercial Bathtubs
22 42 23 Commercial Showers
22 42 26 Commercial Disposers
22 42 29 Shampoo Bowls
22 42 33 Wash Fountains
22 42 36 Commercial Laundry Trays
22 42 39 Commercial Faucets, Supplies, and Trim
22 42 43 Flushometers

22 43 00 Healthcare Plumbing Fixtures
22 43 13 Healthcare Water Closets
22 43 16 Healthcare Sinks
22 43 19 Healthcare Bathtubs
22 43 23 Healthcare Showers
22 43 39 Healthcare Faucets
22 43 43 Healthcare Plumbing Fixture Flushometers
22 45 00  Emergency Plumbing Fixtures
   22 45 13  Emergency Showers
   22 45 16  Eyewash Equipment
   22 45 19  Self-Contained Eyewash Equipment
   22 45 23  Personal Eyewash Equipment
   22 45 26  Eye/Face Wash Equipment
   22 45 29  Hand-Held Emergency Drench Hoses
   22 45 33  Combination Emergency Fixture Units
   22 45 36  Emergency Fixture Water-Tempering Equipment

22 46 00  Security Plumbing Fixtures
   22 46 13  Security Water Closets and Urinals
   22 46 13.13  Security Water Closets
   22 46 13.16  Security Urinals
   22 46 16  Security Lavatories and Sinks
   22 46 16.13  Security Lavatories
   22 46 16.16  Security Sinks
   22 46 19  Security Showers
   22 46 39  Security Faucets, Supplies, and Trim
   22 46 43  Security Plumbing Fixture Flushometers
   22 46 53  Security Plumbing Fixture Supports

22 47 00  Drinking Fountains and Water Coolers
   22 47 13  Drinking Fountains
   22 47 16  Pressure Water Coolers
   22 47 19  Water-Station Water Coolers
   22 47 23  Remote Water Coolers

22 50 00  Pool and Fountain Plumbing Systems

22 51 00  Swimming Pool Plumbing Systems
   22 51 13  Swimming Pool Piping
   22 51 16  Swimming Pool Pumps
   22 51 19  Swimming Pool Water Treatment Equipment
   22 51 23  Swimming Pool Equipment Controls

22 52 00  Fountain Plumbing Systems
   22 52 13  Fountain Piping
   22 52 16  Fountain Pumps
   22 52 19  Fountain Water Treatment Equipment
   22 52 23  Fountain Equipment Controls

22 60 00  Gas and Vacuum Systems for Laboratory and Healthcare Facilities

22 61 00  Compressed-Air Systems for Laboratory and Healthcare Facilities
   22 61 13  Compressed-Air Piping for Laboratory and Healthcare Facilities
   22 61 13.53  Laboratory Compressed-Air Piping
   22 61 13.70  Healthcare Compressed-Air Piping
   22 61 13.74  Dental Compressed-Air Piping
   22 61 19  Compressed-Air Equipment for Laboratory and Healthcare Facilities
   22 61 19.53  Laboratory Compressed-Air Equipment
   22 61 19.70  Healthcare Compressed-Air Equipment
   22 61 19.74  Dental Compressed-Air Equipment
22 62 00 Vacuum Systems for Laboratory and Healthcare Facilities
22 62 13 Vacuum Piping for Laboratory and Healthcare Facilities
22 62 13.53 Laboratory Vacuum Piping
22 62 13.70 Healthcare, Surgical Vacuum Piping
22 62 13.74 Dental Vacuum Piping
22 62 19 Vacuum Equipment for Laboratory and Healthcare Facilities
22 62 19.53 Laboratory Vacuum Equipment
22 62 19.70 Healthcare Vacuum Equipment
22 62 19.74 Dental Vacuum and Evacuation Equipment
22 62 23 Waste Anesthesia-Gas Piping
22 63 00 Gas Systems for Laboratory and Healthcare Facilities
22 63 13 Gas Piping for Laboratory and Healthcare Facilities
22 63 13.53 Laboratory Gas Piping
22 63 13.70 Healthcare Gas Piping
22 63 19 Gas Storage Tanks for Laboratory and Healthcare Facilities
22 63 19.53 Laboratory Gas Storage Tanks
22 63 19.70 Healthcare Gas Storage Tanks
22 66 00 Chemical-Waste Systems for Laboratory and Healthcare Facilities
22 66 53 Laboratory Chemical-Waste and Vent Piping
22 66 70 Healthcare Chemical-Waste and Vent Piping
22 66 83 Chemical-Waste Tanks
22 66 83.13 Chemical-Waste Dilution Tanks
22 66 83.16 Chemical-Waste Neutralization Tanks
22 67 00 Processed Water Systems for Laboratory and Healthcare Facilities
22 67 13 Processed Water Piping for Laboratory and Healthcare Facilities
22 67 13.13 Distilled-Water Piping
22 67 13.16 Reverse-Osmosis Water Piping
22 67 13.19 Deionized-Water Piping
22 67 19 Processed Water Equipment for Laboratory and Healthcare Facilities
22 67 19.13 Distilled-Water Equipment
22 67 19.16 Reverse-Osmosis Water Equipment
22 67 19.19 Deionized-Water Equipment
23 00 00 Heating, Ventilating, and Air Conditioning (HVAC)

23 01 00 Operation and Maintenance of HVAC Systems
- 23 01 10 Operation and Maintenance of Facility Fuel Systems
- 23 01 20 Operation and Maintenance of HVAC Piping and Pumps
- 23 01 30 Operation and Maintenance of HVAC Air Distribution
- 23 01 30.51 HVAC Air-Distribution System Cleaning
- 23 01 50 Operation and Maintenance of Central Heating Equipment
- 23 01 60 Operation and Maintenance of Central Cooling Equipment
- 23 01 60.71 Refrigerant Recovery/Recycling
- 23 01 70 Operation and Maintenance of Central HVAC Equipment
- 23 01 80 Operation and Maintenance of Decentralized HVAC Equipment
- 23 01 90 Diagnostic Systems for HVAC

23 05 00 Common Work Results for HVAC
- 23 05 13 Common Motor Requirements for HVAC Equipment
- 23 05 16 Expansion Fittings and Loops for HVAC Piping
- 23 05 19 Meters and Gages for HVAC Piping
- 23 05 23 General-Duty Valves for HVAC Piping
- 23 05 29 Hangers and Supports for HVAC Piping and Equipment
- 23 05 33 Heat Tracing for HVAC Piping
- 23 05 48 Vibration and Seismic Controls for HVAC
- 23 05 53 Identification for HVAC Piping and Equipment
- 23 05 63 Anti-Microbial Coatings for HVAC Ducts and Equipment
- 23 05 66 Anti-Microbial Ultraviolet Emitters for HVAC Ducts and Equipment
- 23 05 93 Testing, Adjusting, and Balancing for HVAC

23 06 00 Schedules for HVAC
- 23 06 10 Schedules for Facility Fuel Service Systems
- 23 06 20 Schedules for HVAC Piping and Pumps
- 23 06 20.13 Hydronic Pump Schedule
- 23 06 30 Schedules for HVAC Air Distribution
- 23 06 30.13 HVAC Fan Schedule
- 23 06 30.16 Air Terminal Unit Schedule
- 23 06 30.19 Air Outlet and Inlet Schedule
- 23 06 30.23 HVAC Air Cleaning Device Schedule
- 23 06 50 Schedules for Central Heating Equipment
- 23 06 50.13 Heating Boiler Schedule
- 23 06 60 Schedules for Central Cooling Equipment
- 23 06 60.13 Refrigerant Condenser Schedule
- 23 06 60.16 Packaged Water Chiller Schedule
- 23 06 70 Schedules for Central HVAC Equipment
- 23 06 70.13 Indoor, Central-Station Air-Handling Unit Schedule
- 23 06 70.16 Packaged Outdoor HVAC Equipment Schedule
- 23 06 80 Schedules for Decentralized HVAC Equipment
- 23 06 80.13 Decentralized Unitary HVAC Equipment Schedule
- 23 06 80.16 Convection Heating and Cooling Unit Schedule
- 23 06 80.19 Radiant Heating Unit Schedule

23 07 00 HVAC Insulation
- 23 07 13 Duct Insulation
- 23 07 16 HVAC Equipment Insulation
23 07 19 HVAC Piping Insulation

23 08 00 Commissioning of HVAC

23 09 00 Instrumentation and Control for HVAC
23 09 13 Instrumentation and Control Devices for HVAC
23 09 13.13 Actuators and Operators
23 09 13.23 Sensors and Transmitters
23 09 13.33 Control Valves
23 09 13.43 Control Dampers
23 09 23 Direct-Digital Control System for HVAC
23 09 33 Electric and Electronic Control System for HVAC
23 09 43 Pneumatic Control System for HVAC
23 09 53 Pneumatic and Electric Control System for HVAC
23 09 93 Sequence of Operations for HVAC Controls

23 10 00 Facility Fuel Systems

23 11 00 Facility Fuel Piping
23 11 13 Facility Fuel-Oil Piping
23 11 16 Facility Gasoline Piping
23 11 23 Facility Natural-Gas Piping
23 11 26 Facility Liquefied-Petroleum Gas Piping

23 12 00 Facility Fuel Pumps
23 12 13 Facility Fuel-Oil Pumps
23 12 16 Facility Gasoline Dispensing Pumps

23 13 00 Facility Fuel-Storage Tanks
23 13 13 Facility Underground Fuel-Oil, Storage Tanks
23 13 13.13 Double-Wall Steel, Underground Fuel-Oil, Storage Tanks
23 13 13.16 Composite, Steel, Underground Fuel-Oil, Storage Tanks
23 13 13.19 Jacketed, Steel, Underground Fuel-Oil, Storage Tanks
23 13 13.23 Glass-Fiber-Reinforced-Plastic, Underground Fuel-Oil, Storage Tanks
23 13 13.33 Fuel-Oil Storage Tank Pumps
23 13 23 Facility Aboveground Fuel-Oil, Storage Tanks
23 13 23.13 Vertical, Steel, Aboveground Fuel-Oil, Storage Tanks
23 13 23.16 Horizontal, Steel, Aboveground Fuel-Oil, Storage Tanks
23 13 23.19 Containment-Dike, Steel, Aboveground Fuel-Oil, Storage Tanks
23 13 23.23 Insulated, Steel, Aboveground Fuel-Oil, Storage Tanks
23 13 23.26 Concrete-Vaulted, Steel, Aboveground Fuel-Oil, Storage Tanks

23 20 00 HVAC Piping and Pumps

23 21 00 Hydronic Piping and Pumps
23 21 13 Hydronic Piping
23 21 13.13 Underground Hydronic Piping
23 21 13.23 Aboveground Hydronic Piping
23 21 13.33 Ground-Loop Heat-Pump Piping
23 21 16 Hydronic Piping Specialties
23 21 23 Hydronic Pumps
23 21 23.13 In-Line Centrifugal Hydronic Pumps
23 21 23.16 Base-Mounted, Centrifugal Hydronic Pumps
23 21 23.19 Vertical-Mounted, Double-Suction Centrifugal Hydronic Pumps
23 21 23.23 Vertical-Turbine Hydronic Pumps
23 21 29 Automatic Condensate Pump Units

23 22 00 Steam and Condensate Piping and Pumps
23 22 13 Steam and Condensate Heating Piping
23 22 13.13 Underground Steam and Condensate Heating Piping
23 22 13.23 Aboveground Steam and Condensate Heating Piping
23 22 16 Steam and Condensate Heating Piping Specialties
23 22 23 Steam Condensate Pumps
23 22 23.13 Electric-Driven Steam Condensate Pumps
23 22 23.23 Pressure-Powered Steam Condensate Pumps

23 23 00 Refrigerant Piping
23 23 13 Refrigerant Piping Valves
23 23 16 Refrigerant Piping Specialties
23 23 19 Refrigerant Safety Relief Valve Discharge Piping
23 23 23 Refrigerants

23 24 00 Internal-Combustion Engine Piping
23 24 13 Internal-Combustion Engine Remote-Radiator Coolant Piping
23 24 16 Internal-Combustion Engine Exhaust Piping

23 25 00 HVAC Water Treatment
23 25 13 Water Treatment for Closed-Loop Hydronic Systems
23 25 16 Water Treatment for Open Hydronic Systems
23 25 19 Water Treatment for Steam System Feedwater
23 25 23 Water Treatment for Humidification Steam System Feedwater

23 30 00 HVAC Air Distribution
23 31 00 HVAC Ducts and Casings
23 31 13 Metal Ducts
23 31 13.13 Rectangular Metal Ducts
23 31 13.16 Round and Flat-Oval Spiral Ducts
23 31 13.19 Metal Duct Fittings
23 31 16 Nonmetal Ducts
23 31 16.13 Fibrous-Glass Ducts
23 31 16.16 Thermoset Fiberglass-Reinforced Plastic Ducts
23 31 16.19 PVC Ducts
23 31 16.26 Concrete Ducts
23 31 19 HVAC Casings

23 32 00 Air Plenums and Chases
23 32 13 Fabricated, Metal Air Plenums
23 32 33 Air-Distribution Ceiling Plenums
23 32 36 Air-Distribution Floor Plenums
23 32 39 Air-Distribution Wall Plenums
23 32 43 Air-Distribution Chases Formed by General Construction
23 32 48 Acoustical Air Plenums

23 33 00 Air Duct Accessories
23 33 13 Dampers
23 33 13.13 Volume-Control Dampers
23 33 13.16 Fire Dampers
23 33 13.19 Smoke-Control Dampers
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- **26 01 26** Maintenance Testing of Electrical Systems
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26 09 33.13 Multichannel Remote-Controlled Dimmers
26 09 33.16 Remote-Controlled Dimming Stations
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26 09 43.13 Digital-Network Lighting Controls
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26 13 00 Medium-Voltage Switchgear
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26 16 00 Medium-Voltage Metering
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   26 18 13 Medium-Voltage Cutouts
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   26 18 19 Medium-Voltage Lightning Arresters
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26 32 00  Packaged Generator Assemblies
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26 32 13.13 Diesel-Engine-Driven Generator Sets
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26 32 13.26 Gas-Turbine Engine-Driven Generators
26 32 16  Steam-Turbine Generators
26 32 19  Hydro-Turbine Generators
26 32 23  Wind Energy Equipment
26 32 26  Frequency Changers
26 32 29  Rotary Converters
26 32 33  Rotary Uninterruptible Power Units
26 32 36  Resistive Load Banks

26 33 00  Battery Equipment
26 33 13  Batteries
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27 01 20 Operation and Maintenance of Data Communications
27 01 30 Operation and Maintenance of Voice Communications
27 01 40 Operation and Maintenance of Audio-Video Communications
27 01 50 Operation and Maintenance of Distributed Communications and Monitoring

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27 05 13.33 DSL Services
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27 05 26 Grounding and Bonding for Communications Systems
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27 05 29 Hangers and Supports for Communications Systems
27 05 33 Conduits and Backboxes for Communications Systems
27 05 36 Cable Trays for Communications Systems
27 05 39 Surface Raceways for Communications Systems
27 05 43 Underground Ducts and Raceways for Communications Systems
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27 06 10 Schedules for Structured Cabling and Enclosures
27 06 20 Schedules for Data Communications
27 06 30 Schedules for Voice Communications
27 06 40 Schedules for Audio-Video Communications
27 06 50 Schedules for Distributed Communications and Monitoring

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27 10 00 Structured Cabling

27 11 00 Communications Equipment Room Fittings
27 11 13 Communications Entrance Protection
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27 11 19 Communications Termination Blocks and Patch Panels
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27 13 00 Communications Backbone Cabling
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27 13 33.13 Communications Coaxial Splicing and Terminations
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27 13 43.13 Dialtone Services Cabling
27 13 43.23 T1 Services Cabling
27 13 43.33 DSL Services Cabling
27 13 43.43 Cable Services Cabling
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27 15 00.23 Audio-Video Communications Horizontal Cabling
27 15 00.39 Patient Monitoring and Telemetry Communications Horizontal Cabling
27 15 00.43 Nurse Call and Intercom Communications Horizontal Cabling
27 15 00.46 Paging Communications Horizontal Cabling
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27 15 00.53 Antennas Communications Horizontal Cabling
27 15 13 Communications Copper Horizontal Cabling
27 15 23 Communications Optical Fiber Horizontal Cabling
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27 16 00 Communications Connecting Cords, Devices, and Adapters
27 16 13 Communications Custom Cable Assemblies
27 16 16 Communications Media Converters, Adapters, and Transceivers
27 16 19 Communications Patch Cords, Station Cords, and Cross Connect Wire

27 20 00 Data Communications
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27 21 16 Data Communications Routers, CSU/DSU, Multiplexers, Codecs, and Modems
27 21 26 Data Communications Network Management
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27 35 00  Call Management
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27 41 16.61 Integrated Audio-Video Systems and Equipment for Theaters
27 41 16.62 Integrated Audio-Video Systems and Equipment for Auditoriums
27 41 16.63 Integrated Audio-Video Systems and Equipment for Stadiums and Arenas
27 41 19 Portable Audio-Video Equipment
27 41 23 Audio-Video Accessories
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27 52 19 Healthcare Imaging Systems
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27 53 13.13 Wireless Clock Systems
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28 01 00  **Operation and Maintenance of Electronic Safety and Security**
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- 28 01 10.51  Maintenance and Administration of Electronic Access Control and Intrusion Detection
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- 28 01 30  Operation and Maintenance of Electronic Detection and Alarm
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- 28 05 13.16  Access Control Communications Conductors and Cables
- 28 05 13.19  Intrusion Detection Communications Conductors and Cables
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- 28 05 26  Grounding and Bonding for Electronic Safety and Security
- 28 05 28  Pathways for Electronic Safety and Security
- 28 05 28.29  Hangers and Supports for Electronic Safety and Security
- 28 05 28.33  Conduits and Backboxes for Electronic Safety and Security
- 28 05 28.36  Cable Trays for Electronic Safety and Security
- 28 05 28.39  Surface Raceways for Electronic Safety and Security
- 28 05 48  Vibration and Seismic Controls for Electronic Safety and Security
- 28 05 53  Identification for Electronic Safety and Security

28 06 00  **Schedules for Electronic Safety and Security**
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- 28 06 20  Schedules for Electronic Surveillance
- 28 06 30  Schedules for Electronic Detection and Alarm
- 28 06 40  Schedules for Electronic Monitoring and Control

28 08 00  **Commissioning of Electronic Safety and Security**

28 10 00  **Electronic Access Control and Intrusion Detection**

28 13 00  **Access Control**
- 28 13 13  Access Control Global Applications
- 28 13 16  Access Control Systems and Database Management
- 28 13 19  Access Control Systems Infrastructure
- 28 13 26  Access Control Remote Devices
- 28 13 26.11  Wireless Access Control Devices
- 28 13 33  Access Control Interfaces
- 28 13 33.16  Access Control Interfaces to Access Control Hardware
- 28 13 33.26  Access Control Interfaces to Intrusion Detection
- 28 13 33.33  Access Control Interfaces to Video Surveillance
- 28 13 33.36  Access Control Interfaces to Fire Alarm
28 13 43 Access Control Identification Management Systems
28 13 53 Security Access Detection
28 13 53.13 Security Access Metal Detectors
28 13 53.16 Security Access X-Ray Equipment
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28 13 63 Access Control Vehicle Identification System

28 16 00 Intrusion Detection
28 16 13 Intrusion Detection Control, GUI, and Logic Systems
28 16 16 Intrusion Detection Systems Infrastructure
28 16 19 Intrusion Detection Remote Devices and Sensors
28 16 33 Intrusion Detection Interfaces
28 16 33.13 Intrusion Detection Interfaces to Remote Monitoring
28 16 33.16 Intrusion Detection Interfaces to Access Control Hardware
28 16 33.23 Intrusion Detection Interfaces to Access Control System
28 16 33.33 Intrusion Detection Interfaces to Video Surveillance
28 16 33.36 Intrusion Detection Interfaces to Fire Alarm
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28 20 00 Electronic Surveillance
28 23 00 Video Surveillance
28 23 13 Video Surveillance Control and Management Systems
28 23 16 Video Surveillance Monitoring and Supervisory Interfaces
28 23 19 Digital Video Recorders and Analog Recording Devices
28 23 23 Video Surveillance Systems Infrastructure
28 23 26 Video Surveillance Remote Positioning Equipment
28 23 29 Video Surveillance Remote Devices and Sensors

28 26 00 Electronic Personal Protection Systems
28 26 13 Electronic Personal Safety Detection Systems
28 26 16 Electronic Personal Safety Alarm Annunciation and Control Systems
28 26 19 Electronic Personal Safety Interfaces to Remote Monitoring
28 26 23 Electronic Personal Safety Emergency Aid Devices

28 30 00 Electronic Detection and Alarm
28 31 00 Fire Detection and Alarm
28 31 11 Digital, Addressable Fire-Alarm Systems
28 31 12 Zoned (DC Loop) Fire-Alarm Systems
28 31 13 Fire Detection and Alarm Control, GUI, and Logic Systems
28 31 23 Fire Detection and Alarm Annunciation Panels and Fire Stations
28 31 33 Fire Detection and Alarm Interfaces
28 31 33.13 Fire Detection and Alarm Interfaces to Remote Monitoring
28 31 33.16 Fire Detection and Alarm Interfaces to Access Control Hardware
28 31 33.23 Fire Detection and Alarm Interfaces to Access Control System
28 31 33.26 Fire Detection and Alarm Interfaces to Intrusion Detection
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28 34 00 Fuel-Oil Detection and Alarm
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  28 46 23 Computer-Based Detention Monitoring and Control Systems
  28 46 26 Discreet-Logic Detention Monitoring and Control Systems
  28 46 29 Discreet-Distributed Intelligence Detention Monitoring and Control Systems
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- 31 01 10 Maintenance of Clearing
- 31 01 20 Maintenance of Earth Moving
- 31 01 40 Maintenance of Shoring and Underpinning
- 31 01 50 Maintenance of Excavation Support and Protection
- 31 01 60 Maintenance of Special Foundations and Load Bearing Elements
- 31 01 62 Maintenance of Driven Piles
- 31 01 62.61 Driven Pile Repairs
- 31 01 63 Maintenance of Bored and Augered Piles
- 31 01 63.61 Bored and Augered Pile Repairs
- 31 01 70 Maintenance of Tunneling and Mining
- 31 01 70.61 Tunnel Leak Repairs

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- 31 05 16 Aggregates for Earthwork
- 31 05 19 Geosynthetics for Earthwork
  - 31 05 19.13 Geotextiles for Earthwork
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43 10 00 Gas Handling Equipment

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43 11 12 Integrially 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
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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
43 12 34 Double-acting Reciprocating Compressors
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43 13 00 **Gas Process Equipment**
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43 13 23 Gas Pressure Regulators
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43 21 00 **Liquid Pumps**
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43 21 19 Dispensing Liquid Pumps
43 21 23 Drum Liquid Pumps
43 21 26 Gear Liquid Pumps
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        43 31.13.13 Activated Carbon-Gas and Liquid Purification Filters
        43 31 13.16  Gas and Liquid Purification Filter Presses
        43 31 13.19  High-Purity Cartridge Gas and Liquid Purification Filters
        43 31 13.23 Membrane Diaphragm Gas and Liquid Purification Filters
43 31 13.26 Multimedia Gas and Liquid Purification Filters
43 31 13.29 Pretreatment Cartridge Gas and Liquid Purification Filters
43 31 13.33 Ultrafilter Units

43 32 00 Gas and Liquid Purification Process Equipment
43 32 13 Gas and Liquid Purification Process Beds
43 32 13.13 Anion-Gas and Liquid Purification Process Beds
43 32 23 Gas and Liquid Purification Process Clarifier Systems
43 32 26 Gas and Liquid Purification Decarbonators
43 32 29 Electronic Deionization Purification Units
43 32 33 External Regeneration Systems
43 32 36 Mixed-Bed Ion-Exchange Vessels
43 32 39 Gas and Liquid Purification Mixed Beds
43 32 39.13 Externally Regenerable Gas and Liquid Purification Mixed Beds
43 32 39.16 In-Situ Regenerable Gas and Liquid Purification Mixed Beds
43 32 53 Packed-Bed Ion-Exchange Vessels
43 32 56 Reverse-Osmosis Purification Units
43 32 59 Gas and Liquid Purification Scrubbers
43 32 63 Ultraviolet Sterilizers
43 32 66 Vacuum Degasifiers
43 32 69 Chemical Feed Systems
43 32 73 Ozonation Equipment
43 32 76 Chlorination Equipment

43 40 00 Gas and Liquid Storage
43 41 00 Non-pressurized Tanks and Vessels
43 41 11 Bolted Steel Tanks
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
43 41 13.43 Ceramic-lined Welded Steel Tanks
43 41 23 Stainless Steel Tanks
43 41 26 Aluminum Tanks
43 41 31 Metallic Specialty Tanks
43 41 41 Polyvinyl Chloride Tanks
43 41 43 Polyethylene Tanks
43 41 45 Fiberglass Reinforced Plastic Tanks
43 41 53 Wood Stave Tanks
43 41 63 Precast Concrete Tanks
43 41 73 Ceramic Tanks
43 41 83 Non-metallic Specialty Tanks

43 42 00 Pressurized Tanks and Vessels
43 42 11 Cast Iron Pressure Tanks
43 42 13 Ductile Iron Pressure Tanks
43 42 21 Welded Steel Pressure Tanks
43 42 23 Glass-lined Steel Pressure Tanks
43 42 26 Welded Steel Gas Storage Sphere
43 42 33 Stainless Steel Pressure Tanks
43 42 36 Aluminum Pressure Tanks
43 42 41 Metallic Specialty Pressure Tanks
43 42 53  Fiberglass Reinforced Plastic Pressure Tanks
43 42 83  Non-metallic Specialty Pressure Tanks
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 06 00  Schedules for Pollution and Waste Control Equipment
  44 06 10  Schedules for Air Pollution Control
  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
  44 06 60  Schedules for Waste Thermal Processing Equipment

44 08 00  Commissioning of Pollution and Waste Control
Equipment
  44 08 10  Commissioning of Air Pollution Control
  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
  44 11 13  Fugitive Dust Control
  44 11 16  Fugitive Dust Barrier Systems
  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
  44 11 96  Dry Plate Electrostatic Precipitator Equipment
44 13 00  Gaseous Air Pollution Control Equipment
44 13 11  Spray Tower/Chamber Absorption Equipment
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
44 13 33  Fluidized Bed Adsorption Equipment
44 13 34  Fixed Bed Adsorption Equipment
44 13 36  Rotary Bed Adsorption Equipment
44 13 39  Radial Bed Adsorption Equipment
44 13 51  Thermal Oxidation Equipment
44 13 53  Catalytic Oxidation Equipment
44 13 56  Flare Oxidation Equipment
44 13 59  Claus Sulfur Recovery Equipment
44 13 71  Thermal Reduction Equipment
44 13 73  Catalytic Reduction Equipment
44 13 76  Non-catalytic Reduction Equipment
44 13 77  Selective Non-catalytic Reduction Equipment
44 13 81  Condensation Systems
44 13 83  Contact Condensing Equipment
44 13 86  Solvent Recovery Equipment
44 13 91  Biofilter Media
44 13 93  Fixed Bed Biofilter Equipment
44 13 96  Fixed Bed Biotrickling Filter Equipment
44 13 97  Fixed Bed Bioscrubbing Equipment

44 20 00  Noise Pollution Control

44 21 00  Noise Pollution Control Equipment
44 21 13  Fixed Noise Abatement Barriers
44 21 16  Flexible Noise Abatement Barriers
44 21 19  Portable Noise Abatement Barriers
44 21 23  Noise Pollution Silencers
44 21 26  Frequency Cancellers

44 30 00  Odor Control

44 31 00  Odor Treatment Equipment
44 31 11  Wet Chemical Packed Tower Odor Control Equipment
44 31 13  Chemical Mist System Odor Control Equipment
44 31 16  Activated Carbon Adsorption Odor Control Equipment
44 31 19  Packaged Odor Control Systems
44 31 21  Odor Control Biofilters
44 31 28  Odor Control Biofilter Aeration Floor
44 31 29  Odor Control Biofilter Media
44 31 31  Odor Control Biotrickling Filter Equipment
44 31 33  Odor Control Bioscrubbing Equipment
44 31 41  Odor Control Vapor Combustion Equipment
44 31 83  Adjusting and Balancing Odor Control Systems

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44 32 00  Odor Dispersing and Masking/Counteracting Equipment
   44 32 13  Odor Dispersing Exhaust Stacks
   44 32 13.13  Fan-equipped Odor Dispersing Exhaust Stacks
   44 32 23  Odor Masking/Counteracting Equipment

44 40 00  Water Pollution Control Equipment

44 41 00  Water Pollution Containment and Cleanup Equipment
   44 41 13  Spill Cleanup
   44 41 21  Containment Booms
   44 41 23  Marine Spill Accessories
   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 Composing 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
44 61 36 Post-combustion Non-ferrous Metals Recovery 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 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 to 45 12 99  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 to 45 14 99  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 to 45 16 99  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 to 45 18 99  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 to 45 20 99  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 to 45 22 99  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 to 45 24 99  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 to 45 26 99  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 to 45 28 99  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 to 45 30 99  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 to 45 32 99  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 to 45 34 99  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 to 45 36 99  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 to 45 38 99  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
45 39 10 to 45 40 99  User-Defined Fabricated Metal Product Manufacturing Equipment

45 41 00  Machinery Manufacturing Equipment
45 41 01  Operation and Maintenance of Machinery Manufacturing Equipment
45 41 06  Schedules for Machinery Manufacturing Equipment
45 41 10 to 45 42 99  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
45 43 06  Schedules for Computer and Electronic Product Manufacturing Equipment
45 43 10 to 45 44 99  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 to 45 46 99 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 to 45 48 99 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
45 49 06 Schedules for Furniture and Related Product Manufacturing Equipment
45 49 10 to 45 50 99 User-Defined Furniture and Related Product Manufacturing Equipment

45 51 00 Other Manufacturing Equipment
45 51 01 Operation and Maintenance of Other Manufacturing Equipment
45 51 06 Schedules for Other Manufacturing Equipment
45 51 10 to 45 52 99 User-Defined Other 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 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 Flocculating 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 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 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 Plant 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 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