

# Appendix A

## SPU Standard Specifications for Electrical Design

### Introduction

This appendix of the Design Standards and Guidelines (DSG) presents Seattle Public Utilities (SPU) Standard Specifications for electrical design. These specifications are presented in Construction Specification Institute (CSI) MasterFormat 2004. Table 1 lists the SPU standards developed at the time of DSG publication.

**Table 1**  
**CSI Specifications List Revision 2010**

	CSI #	Title
1	26 05 00	Common Work Results for Electrical
2	26 05 19	Low Voltage Electrical Power Conductors and Cables
3	26 05 26	Grounding and Bonding for Electrical Systems
4	26 05 29	Hanger Supports for Electrical Systems
5	26 05 33	Raceway and Boxes for Electrical Systems
6	26 05 36	Cable Tray for Electrical Systems
7	26 05 48	Vibration and Seismic Controls for Electrical Systems
8	26 05 53	Identification for Electrical Systems
9	26 09 13	Electrical Power Monitoring
10	26 09 23	Lighting Control Devices
11	26 12 19	Pad-Mounted Transformers
12	26 13 13	Medium-Voltage Metal-Clad Drawout Circuit Breaker and SCL Metering
13	26 13 19	Medium-Voltage Vacuum Interrupter Switchgear
14	26 22 00	Low-Voltage Transformers
15	26 24 13	Switchboards
16	26 24 16	Panelboards
17	26 24 19	Motor Control Center (MCC)
18	26 25 00	Enclosed Bus Assemblies
19	26 27 26	Wiring Devices
20	26 28 13	Fuses
21	26 28 16	Enclosed Switches and Circuit Breakers
22	26 29 13	Enclosed Controllers
23	26 29 23	Variable-Frequency Motor Controllers
24	26 32 13	Engine Generators
25	26 33 53	Static Uninterruptable Power Supply
26	26 36 00	Transfer Switches
27	26 41 13	Lightning Protection for Structures

28	26 43 13	Surge Protection Device (SPD)
29	26 51 00	Interior Lighting
30	26 56 00	Exterior Lighting
31	40 95 33.23	Fiber Optic Process Control Networks

## Construction Specifications Institute Format (CSI)

The Construction Specifications Institute (CSI) has developed a standard format for specifications. DSG electrical specifications have been arranged and formatted to conform to CSI standard, MasterFormat 2004. Division 26 is the CSI section for electrical specifications.

## Other CSI Technical Specifications

Project technical specifications contain equipment and material specifications in which designers are most interested. While electrical specifications are in Division 26, designers also need to be concerned with other CSI sections that have electrical content. The electrical design engineer should review the following other sections:

Division	Content	Equipment
<b>22</b>	Plumbing	Water heaters
<b>23</b>	HVAC	Review HVAC sections
<b>33</b>	Utilities	Review all sections for motors, motor control, control systems, etc.
<b>40</b>	Process Integration	I&C
<b>44</b>	Pollution Control	Water Treatment Equipment

## Relationship to Drawings

Electrical specifications generally are qualitative, with exact quantities, ratings, and dimensions covered in the drawings and schedules or on data sheets. If the specifications conflict with the drawings, the written specifications take precedence over the drawings.

## Front-end Specifications

In addition to technical specifications, a typical set of construction specifications includes numerous general and legal sections (referred to as *front-end* sections). While the front-end sections are nontechnical, it is important for the electrical design engineer to know what is in them and how they relate to Division 26 technical specifications.

## Data Sheets

Data sheets are brief descriptions of specific ratings and requirements for equipment or material. They are generally used in conjunction with a written specification to convey detailed information about a particular piece of equipment when a general section specifies multiple similar items. Data sheets reduce the need to edit a master specification and can be generated automatically from a database.

## Document Production

The CSI specifications are produced in a document processing template preferred by SPU Contracting.