



# Attachment 1A

**PacifiCorp Energy**

**Project Document  
Formatting and Requirements**

**Generation Support  
January 14, 2014**

	<b>Rev.1</b>	<b>Date</b>	<b>Rev. 2</b>	<b>Date</b>	<b>Rev. 3</b>	<b>Date</b>
<b>Prepared By:</b>	R.E.C.	01/14/2014	Allisha Lester	07/28/2014	Allisha Lester	09/30/2014
<b>Reviewed By:</b>	R.E.C.	01/14/2014	Lon Udy	09/09/2014	Jean Zimel	09/30/2014
<b>Approved By:</b>	R.E.C.	01/14/2014	Lon Udy	09/09/2014	Lon Udy	09/30/2014

<b>ATTACHMENT 1A</b>					
<b>Document Revision Record</b>					
<b>Version</b>	<b>Date</b>	<b>Prepared By</b>	<b>Approved By</b>	<b>Page</b>	<b>Description</b>
0	04/04/2013	Gen Support	Rand Clawson	-	-
1	07/28/2014	Allisha Lester	Rand Clawson	-	-
2	09/09/2014	Allisha Lester	Lon Udy	-	Modified to contractual language, verbiage and formatting
3	09/30/2014	Allisha Lester	Lon Udy	4	1.2.2 Added "Consultant" per Procurement

**TABLE OF CONTENTS**

<b>1.0 GENERAL.....</b>	<b>4</b>
<b>2.0 DELIVERABLES .....</b>	<b>5</b>
<b>3.0 DESIGN REVIEW BY COMPANY .....</b>	<b>6</b>
<b>4.0 SOFTWARE REQUIREMENTS.....</b>	<b>7</b>
<b>5.0 DOCUMENT TURNOVER COMPACT DISC (CD) FORMAT .....</b>	<b>7</b>

## **1.0 GENERAL**

- 1.1.** Attachment 1B lists all project documents that must be provided as deliverables under this scope of work. Contractor and their subcontractor(s) (hereafter referred to as Contractor) must comply with the documentation and formatting requirements outlined in this attachment (Attachment 1A). If the Contractor is unable to meet these requirements, exceptions can only be approved by the Company's Document Control Group in Salt Lake City, Utah (CDCSLC). Contractor must direct all requests for exception through the Company representative. The CDCSLC group, at their discretion, may approve exceptions, or refer requests to the project specific plant document control group for approval.
- 1.2.** Throughout this document, the term "Contractor" is used to represent any of the following people or organizations to which this attachment applies:
  - 1.2.1.** Contractor - Engineering contractor, owner's engineer
  - 1.2.2.** Subcontractor/Consultant - Contracted by engineering contractor to provide new drawings or other project specific deliverables
  - 1.2.3.** Vendor - Original Equipment Manufacturer (OEM) or other material supplier
- 1.3.** All documents (paper or electronic) must be provided in English. Documents delivered to the Company by Contractor must also clearly identify the following information on each drawing (all sheets) and the first page of all other documentation:
  - 1.3.1.** Plant Name
  - 1.3.2.** Plant Unit Number
  - 1.3.3.** Document Title
  - 1.3.4.** Document Number
  - 1.3.5.** Document Issue Date
  - 1.3.6.** Revision Number
  - 1.3.7.** Revision Date
  - 1.3.8.** Contract Number
  - 1.3.9.** Project Number - WBS Number provided by the Company
  - 1.3.10.** Equipment Tag Numbers
  - 1.3.11.** System
  - 1.3.12.** Sub-system
- 1.4.** Contractor must also provide two complete indexes of all project document deliverables in a functional (unprotected) Microsoft Excel format (provided by the Company). One of these indexes will list drawings and one will list non-drawing documents. *The non-drawing index must include, but it is not limited to the following: equipment manuals, operation and maintenance manuals, reports, procedures, data books, specifications and preventative maintenance documents.* Contractor must update and maintain each index throughout the duration of the project - each time it is submitted to the Company. These indexes will be used by the Company to track documents received from the Contractor during each phase of the project (preliminary, construction, as-built/as-installed, etc.). Company will also use the indexes as a basis for document control and database entry. Both project deliverable index templates are provided by the Company in the "Complete Vendor File Set."

## 2.0 DELIVERABLES

### 2.1. Drawings

#### 2.1.1. Drawing Standards

Drawings created specifically for this project must be prepared per PacifiCorp Energy's General AutoCAD/Drafting Standards, hereafter referenced as Specification DCAP876. CDCSLC is available throughout the project's duration to field any compliance or drawing related issues or questions.

#### 2.1.2. AutoCAD Review by Company

Early in the design process, as new AutoCAD drawings are produced, Contractor shall provide to CDCSLC a minimum of three AutoCAD drawings from each discipline for review and verification of compliance with Specification DCAP876. When CDCSLC confirms that the Contractor understands, complies with, and is meeting the drawing standard requirements, no other formal AutoCAD reviews will be required. However, the Company may request and review additional drawings thereafter at any time. Furthermore, the final as-built drawing package will be reviewed by the Company for compliance.

The CDCSLC group, at their discretion, may include or divert this review process to the project specific plant document control group.

#### 2.1.3. Final Drawings

Contractor must provide "as-built" drawings representing the "as-constructed" condition of the entire project. Contractor shall revise all applicable drawings to incorporate all "as-built" information until the Company is satisfied that the drawings are correct and that Specification DCAP876 has been met (Company approved). Vendor drawings must reflect "as-built" or "as-installed" conditions.

#### 2.1.4. Drawings within Manuals

Contractor must provide all drawings within the manuals in two ways: 1) as part of the manual, 2) as separate, single page pdf copies. The drawings must be current (no field markings or redlines), legible (if scanned, 300dpi minimum) and properly oriented. Contractor must identify file names by drawing number and sheet number. Contractor must provide the drawings in numerical order and reference them in the index. Below is a file name example:

Example: 

## **2.2. Manuals**

Contractor shall provide all manuals as individual files limited to 40 MB. Each file must contain one piece of equipment, but cannot include marked-up sketches, references or other field markings. If links are used within a file they shall only link to a section within that file. Links to external files are not acceptable. Every file must be complete, organized and delivered so that each file may be accessed independently for use by the Company. The content in each manual must match the table of contents; the pages must also be legible, oriented properly and bookmarked for accessibility. If documents are scanned, the resolution must be 300 dpi or greater. Each manual title, and its electronic file name, must properly reflect the equipment name and equipment tag number. If a file is larger than 40 MB, it must be separated by chapter, tab, or section as per the table of contents.

Information supplied by the Contractor must include, but is not limited to, all critical data, such as: weight, dimensions, lifting requirements, installation instructions, external connections, anchorage information, correlation with supporting equipment, maintenance procedures, operating parameters, recommended spare parts, and lubrication instructions.

*Note: For manuals with drawings included, see section [2.1.4](#)*

## **3.0 DESIGN REVIEW BY COMPANY**

### **3.1. Drawings**

All new drawings that are generated and submitted by the Contractor for status change or review (issued for review, issued for construction and “as-built”) must be provided in both Adobe (.pdf) and AutoCAD (.dwg) file formats. The Company may provide comments to the Contractor about the drawings if items are not in compliance with the requirements of this contract specification (including Specification DCAP876). Contractor is then required to resolve all compliance issues in a timely manner and resubmit the drawings for approval/acceptance to ensure all the drawings conform to the contract requirements. Final payment will not be made until all drawings are acceptable by the Company.

### **3.2. Non-Drawings**

All non-drawing documents that are generated and submitted by the Contractor for status change or review (issued for review, issued for construction and “as-built”) must be provided in one, electronic file format (see Table 1 for software requirements in section 4.0). Company may provide comments to Contractor about the submitted documents if items are not in compliance with the requirements of this contract specification. Contractor is then required to resolve all compliance issues in a timely manner and resubmit the documents for approval/acceptance to ensure the work conforms to the contract requirements. Final payment will not be made until non-drawing documents are acceptable by the Company.

#### **4.0 SOFTWARE REQUIREMENTS**

- 4.1. Contractor must provide all document deliverables to the Company in the required file format(s) listed in Table 1 below, or as directed by Company representative. This requirement applies to both Contractor and/or OEM provided deliverables. All Contractor deliverables must be provided in a data format that allows Company to input documents into existing applications. Company will provide Contractor with formatting information as requested. Contractor must provide electronic submittals and “as-built” or “as-installed” documents, in the following software formats:

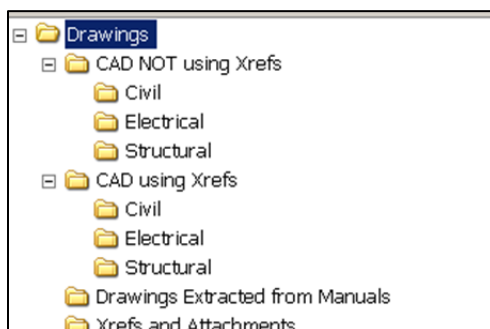
<b>Software Function</b>	<b>Software Name</b>
Word processing	*Microsoft Word
Spreadsheets	*Microsoft Excel
Database	*Microsoft Access
Design/Construction & Original OEM Drawings	*AutoCAD (CDCSLC will provide current AutoCAD version information)
Project Schedules	*Primavera / *Microsoft Project as directed by Company.
Scannable Material	Adobe Acrobat (.pdf) Image (.tif)
<b>*version must not be newer than that currently being used by Company</b>	

**Table 1**

#### **5.0 DOCUMENT TURNOVER COMPACT DISC (CD) FORMAT**

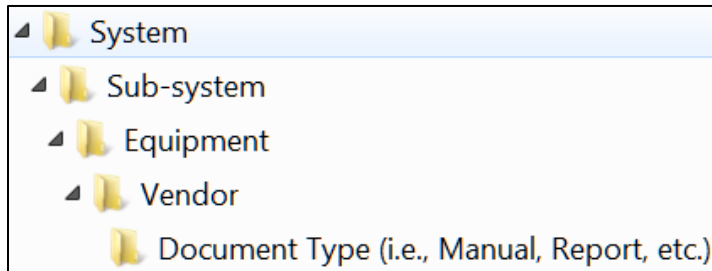
- 5.1. If the project contains Critical Infrastructure Information (CII), those documents must be identified as CII and provided on separate CD(s).
- 5.2. **Drawing CD(s)**

Contractor must provide drawings on a separate set of CD(s) and identify them as “as-built.” The first disc must include the most current index. All file content must be organized in folders and structured by xref’d and non-xref’d CAD groups, disciplines, drawings extracted from manuals, xref’s and attachments. An example is shown below:



### 5.3. Non-Drawing CD(s)

All final/complete non-drawing documents listed in Attachment 1B must be submitted to Company representative. Contractor must provide these documents on a separate set of CD(s) and identify them as final, “as-installed.” The first CD must include the most current index. All file content must be organized in folders and structured by system, sub-system, equipment, vendor and document type (report, manual, specification, etc.). An example is shown below:



Note: Company representative may request Contractor to provide a hard copy of non-drawing documents.

### 5.4. CD Identification

Each CD must be identified with the following:

- 5.4.1. Plant Name
- 5.4.2. Plant Unit Number
- 5.4.3. Project Name
- 5.4.4. Date
- 5.4.5. Project Number - WBS number provided by the Company
- 5.4.6. Status: As-built (for drawings)
- 5.4.7. Status: As-installed (for non-drawing documents)
- 5.4.8. Disc Number
- 5.4.9. Drawings or Non-Drawings

Lightscribe, printed handwriting, or direct printing to record this information on disc(s) is acceptable. Adhesive labels are *not* acceptable.

**End of Attachment 1A**