

Section 01782

OPERATIONS AND MAINTENANCE DATA

PART 1 GENERAL

1.1 SECTION INCLUDES

1. Submittal requirements for equipment and facility operating and maintenance manuals

1.2 MEASUREMENT AND PAYMENT

1. Value of approved equipment operations and maintenance manuals is 5 percent of individual equipment value as indicated in Schedule of Unit Price Work or Schedule of Values. This amount can be included in next progress payment after approval of submitted manual.

1.3 SUBMITTALS

1. Conform to requirements of Section 01330 - Submittal Procedures. Submit list of operation and maintenance manuals and parts manuals to be provided.
2. Submit documents, bound in 8-1/2x11-inch text pages, 3ring/D binders with durable plastic covers.
3. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project and subject matter of binder when multiple binders are required.
4. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
5. Contents: Prepare Table of Contents for each volume, with each Product or system description identified.

1. Part 1: Directory, listing names, addresses and telephone numbers of Architect/Engineer, Contractor, Subcontractors and major equipment suppliers.
2. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses and telephone numbers of subcontractors and suppliers. Identify following:
 1. Significant design criteria
 2. List of equipment
 3. Parts list for each component

4. Operating instructions
5. Maintenance instructions for equipment and systems
6. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents
3. Part 3: Project documents and certificates, including following:
 1. Shop drawings and product data
 2. Air and water balance reports
 3. Certificates
 4. Photocopies of warranties
6. Within one month prior to placing equipment or facility in service, submit one original and two copies of operation and maintenance manual and parts manual for review.
7. Submit one original and two copies of completed volumes in final form 10 days prior to final inspection. This will be returned after final inspection, with City Engineer comments. Revise content of documents as required prior to final submittal.
8. Revise and resubmit final volumes (three each) within 10 days after final inspection.

1.4 EQUIPMENT OPERATION AND MAINTENANCE DATA

1. Furnish operation and maintenance manuals for equipment. Operation and maintenance manual must contain all information required for City to operate, maintain and repair equipment. Manual must be prepared by equipment manufacturer, furnished to City Engineer and, as minimum, contain following:
 1. Equipment functions, normal operating characteristics and limiting conditions
 2. Assembly, installation, alignment, adjustment and checking instructions
 3. Operating instructions for start-up, normal operation, regulation and control, normal shutdown and emergency shutdown
 4. Lubrication and detailed maintenance instructions. Maintenance instructions are to include detailed drawings giving location of each maintainable part and lubrication point and detailed instructions on disassembly and reassembly of equipment
 5. Troubleshooting guide

6. Complete spare parts list with predicted life of parts subject to wear, lists of spare parts recommended on hand for both initial start-up and for normal operating inventory, and local or nearest source of spare parts availability
 7. Outline, cross-section and assembly drawings; engineering data; wiring diagram
 8. Test data and performance curves
2. Furnish parts manuals for equipment. Manual must be prepared by equipment manufacturers, furnished to City Engineer and, as minimum, contain following:
1. Detailed drawings giving location of each maintainable part
 2. Complete spare parts list with predicted life of parts subject to wear, lists of spare parts recommended on hand for both initial start-up and for normal operating inventory, and local or nearest source of spare parts availability

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION