

SECTION 01730 – OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall provide operation and maintenance data prior to final acceptance in the form of instructional manuals for use by the District's personnel for all equipment and systems including but not limited to pumps, motors, and drives, all valves, gates and related accessories, and all instruments and control devices.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 01300 – Submittals

1.3 SUBMITTALS

- A. The following shall be submitted in compliance with the Standard Specifications:
 - 1. The Contractor shall submit six (6) copies of all the operations and maintenance data to the District within 30 days after approval of the final Shop Drawing.
 - 2. Provide a letter of transmittal with each submittal and include the following in the letter:
 - a. Date of submittal.
 - b. Contract title and number.
 - c. Contractor's name and address.
 - d. A list of the attachments and the Specification Sections to which they relate.
 - e. Reference to or explanation of related submittals already made or to be made at a future date.

1.4 OPERATION AND MAINTENANCE DATA

- A. The term "operation and maintenance data" includes all product related information and documents which are required for preparation of the operation and maintenance manual. It also includes all data, which must accompany said manual as directed by current regulations of any participating government agency.
- B. Required operation and maintenance data includes, but is not limited to, the following:
 - 1. Complete, detailed written operating instructions for each product or piece of equipment including: equipment function; operating characteristics; limiting conditions; operating instructions for startup, normal and emergency conditions; regulation and control; and shutdown.
 - 2. Complete, detailed written preventive maintenance instructions. The term "preventive maintenance instructions" includes all information and instructions required to keep a product or piece of equipment properly lubricated, adjusted and maintained so that the item functions properly throughout its full design life.
 - a. Preventive maintenance instructions include, but are not limited to, the following:

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- i. Written explanation with illustrations for each preventive maintenance task.
 - ii. Recommended schedule for execution of preventive maintenance tasks.
 - iii. Lubrication charts.
 - iv. Table of alternative lubricants.
 - v. Trouble shooting instructions.
 - vi. List of required maintenance tools and equipment.
 3. A functional lockout/tagout standard operating procedure for the equipment/machinery that describes how the equipment/ machinery are to be locked out and where it can be tagged out.
 4. Recommended spare parts lists and local sources of supply for parts.
 5. Written explanations of all safety considerations relating to operation and maintenance procedures.
 6. Name, address and phone number of manufacturer, manufacturer's local service representative, and Subcontractor or installer.
 7. Copy of all approved Shop Drawings, and copy of warranty bond and service contract as applicable.
- C. Format Requirements:
1. The Contractor shall use eight and a half inch (8 ½”) by eleven inch (11”) paper of high quality. Larger drawings or illustrations are acceptable if neatly folded to the specified size in a manner, which will permit easy unfolding without removal from the binder. Provide reinforced punched binder tab or provide fly-leaf for each product.
 2. All text must be legible typewritten or machine printed originals or high quality copies of same.
 3. Each page shall have a binding margin of approximately one and a half inches (1 ½”) and be punched for placement in a three ring loose-leaf or triple post binder. Provide binders not less than one inch or more than two and a half inches (2 ½”) thick. Identify each binder on the spine and outside front cover with the following:
 - a. "OPERATING AND MAINTENANCE INSTRUCTIONS".
 - b. Project name, and number (if applicable).
 - c. Identity of building, structure or area as applicable.
 - d. Identity of general subject matter covered.
 4. The Contractor shall use dividers and typewritten indexed tabs between major categories of information such as operating instructions, preventive maintenance instructions, or other. When necessary, place each major category in a separate binder.

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5. The Contractor shall provide a table of contents for each binder.
6. The Contractor shall identify products by their functional names in the table of contents and at least once in each chapter or Section. Thereafter, abbreviations and acronyms may be used if their meaning is explained in a table in the back of each binder. Use of model or catalog numbers or letters for identification is not acceptable.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

****END OF SECTION****