

CHAPTER 2 - PROJECT MANUALS

2-1. Purpose. This chapter establishes the policy for operation and maintenance (O&M) manuals, excluding water control manuals, for completed civil works projects operated and maintained by the Corps of Engineers.

2-2. Policy. It is the policy of the Corps of Engineers that:

a. District commanders (includes operating major subordinate commanders) are responsible for developing, maintaining, and distributing an up-to-date operation and maintenance manual for each civil works project under his/her supervision.

b. An O&M manual will be initiated during preconstruction engineering and design of a project, and be developed during the construction and equipment installation phases at a project, if possible. A draft manual should be available during commissioning or start-up so corrections can easily be made. The final manual will be available within six (6) months.

c. Project O&M manuals will be updated systematically. Each district command is responsible for developing, implementing, and maintaining a plan to provide for updates to the O&M manual at each completed civil works project. Manuals will be updated at least every 10 years and after every major rehabilitation. The update will consist of, at a minimum, a formal review, with revisions if necessary.

d. The O&M manual will be written so as to focus on the needs of future project personnel who may not be familiar with the O&M history of the project. The following is a list of the primary material categories to be included in the O&M manual:

(1) A conceptual description of the use, operation, and interrelationship of the project facilities' various systems and subsystems.

(2) A description of the theory of the facility system and equipment, developed to the level one would expect a journeyman craftsperson to understand. This shall include operating limits and criteria of the major project equipment and facilities, as well as schematic, circuit, and piping diagrams and drawings. It is not necessary to describe the equipment and features in detail.

(3) A narrative including the operating instructions and explanation of the functioning of only the more critical and complicated project equipment and systems, i.e., those with which project personnel may not be generally familiar. Major automatic and remote control systems; protective relay schemes for the major power equipment and facilities; complicated or seldom used procedures and emergency actions and procedures related to major project equipment or facilities are some examples of items in this category. Reference should be made to information available in manufacturer's instructions and drawings, the project maintenance control system, project drawings, and project files when such information shall ensure a comprehensive understanding of the operation and maintenance of equipment and facilities.

(4) A description of the level of maintenance performed on each system and subsystem, including the benefits gained from tracking specific maintenance measurements.

(5) A cross-reference of facility system and subsystem O&M activities to any applicable safety or environmental issues.

e. The O&M manual will include coverage of all O&M subjects required by the Project Cooperation Agreement (PCA) or other agreements, if applicable, and existing laws and regulations, in detail sufficient to ensure proper O&M accomplishment. Appendix B discusses the sections of a suggested table of contents.

f. Distribution. At least one copy of the manual, or manuals, will be available at all times in the project office, or the headquarters of the activity to which it pertains, for the operations and maintenance personnel. One copy of each project's manual, or manuals, will be available in the office of the applicable MSC and District Commander. The manuals need not be submitted to the Commander, HQUSACE.

2-3. Approval. The original and any subsequent revisions to the O&M manual require approval of the MSC Commander. However, the MSC Commander is hereby authorized to delegate the approval authority to the District Commander.