

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, DC 20314-1000

EM 1110-2-3105

CECW-EE

Manual
No. 1110-2-3105

30 March 1994

Engineering and Design
MECHANICAL AND ELECTRICAL DESIGN OF PUMPING STATIONS

1. Purpose. The purpose of this manual is to provide information and criteria pertinent to the design and selection of mechanical and electrical systems for flood-control pumping stations. Elements discussed include equipment requirements, design memorandum, Operation and Maintenance manuals, pumping equipment and conditions, discharge system, engines and gears, pump drive selection, pump and station hydraulic tests, earthquake considerations, power supply, motors, power distribution equipment, control equipment, station wiring, station and equipment grounding, surge protection, electrical equipment, environmental protection, station service electrical system, and station service diesel generator.

2. Applicability. This manual applies to all HQUSACE elements, major subordinate commands, districts, laboratories, and field operating activities having civil works responsibilities.

FOR THE COMMANDER:

8 Appendixes
(See Table of Contents)



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Colonel, Corps of Engineers
Chief of Staff

This manual supersedes EM 1110-2-3105, dated 10 December 1962.