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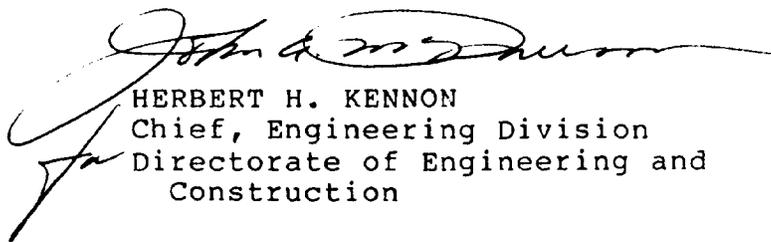
15 December 1988

ENGINEERING AND DESIGN
SELECTING REACTION-TYPE HYDRAULIC TURBINES AND PUMP TURBINES
AND
HYDROELECTRIC GENERATORS AND GENERATOR-MOTORS

1. Purpose. This letter provides advance criteria for selection of Reaction-Type Hydraulic Turbines and Pump Turbines and Generators and Generator motors. This criteria is to be used pending incorporation into an Engineering Manual.
2. Applicability. This letter applies to all HQUSACE/OCE elements and field operating activities having civil works hydroelectric design responsibilities.
3. Discussion. Development of this criteria has been in progress for several years and is published to insure that the experience and expertise of the several authors is not lost to the Corps with the retirement of these people. The criteria provides guidance on all of the factors pertaining to the selection, setting, and characteristics which must be understood in design of a conventional hydroelectric generating or pump-turbine plants. Criteria covering unconventional and small hydroelectric plants will be published at a later date. Emphasis is placed on the fact that manufactures recommendation and proposals must be sought and obtained in the equipment selection process, however, guidance contained herein will provide a basis for accepting manufacturers recommendation.

FOR THE DIRECTOR OF ENGINEERING AND CONSTRUCTION:

Encl



HERBERT H. KENNON
Chief, Engineering Division
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Construction

This ETL reissued to include previously missing pages (Appendices A-E).