

CECW-EG

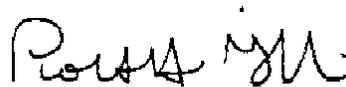
Manual  
No. 1110-2-2102

30 September 1995

**Engineering and Design**  
**WATERSTOPS AND OTHER PREFORMED JOINT MATERIALS**  
**FOR CIVIL WORKS STRUCTURES**

- 1. Purpose.** This manual provides guidance for the selection and use of waterstops and other preformed joint materials for preventing passage of excessive amounts of water, water-borne matter, gases, other fluids, and other unwanted substances into or through the joints of concrete structures.
- 2. Applicability.** This manual is applicable to HQUSACE elements and USACE commands having civil works responsibilities.
- 3. Discussion.** Most concrete structures have contraction, expansion, and construction joints. Joints can be a path for unwanted matter, liquids, solids, and gaseous substances to enter and pass through the concrete joint and possibly cause damage to the integrity and serviceability of the structure. Waterstops and other preformed joint materials are a primary line of defense against the passage of excessive amounts of these substances. This manual provides information and data on the various waterstops, preformed compression seals, and other preformed joint materials; their shapes, sizes, and the physical properties that are available to the designers of concrete structures.

FOR THE COMMANDER:



ROBERT H. GRIFFIN  
Colonel, Corps of Engineers  
Chief of Staff