



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers  
WASHINGTON, D.C. 20314-1000

REPLY TO  
ATTENTION OF:

28 APR 1998

CECW-ON

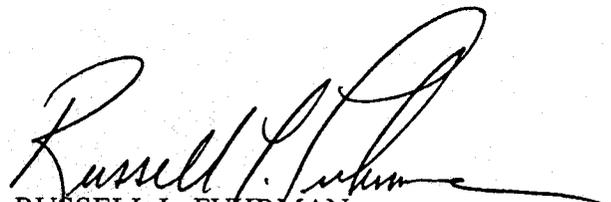
MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS

SUBJECT: Use of Foam Filled Pipe Lines Versus Anchored Buoys to Mark Swimming Areas

1. References:

- a. EM 1110-1-400 (Recreation Planning and Design Criteria), 31 July 1987.
  - b. ER 1130-2-550, Chapter 2, (Recreation Operations & Maintenance Policies), 15 November 1996.
2. Findings from a recent U.S. Army Audit Agency audit revealed the use of a floating pipeline system as a cost effective method of marking swimming beach boundaries.
  3. Although anchored buoys are common at many U.S. Army Corps of Engineers beaches and are one of the options in regulation EM-1110-1-400, they are expensive and must be moved with the changes in lake elevations and removed each fall at many locations.
  4. The purchase and maintenance costs of pipeline was determined in the audit to be less than the costs of anchored buoys. By replacing buoy systems, projects could realize a savings in the first year they install the pipe system. Estimated annual maintenance costs for the buoy system exceeds the initial investment cost of the floating pipe.
  5. I suggest that you consider replacing old anchor buoy systems with more cost effective floating pipe line systems as maintenance is needed. Some districts and divisions are currently using the orange gas pipeline for this purpose and it appears to be working well also.
  6. Please distribute this information to your district and project personnel.

FOR THE COMMANDER:

  
RUSSELL L. FUHRMAN  
Major General, USA  
Director of Civil Works