

## PERMISSION TO PHOTOCOPY JOURNAL PAPERS

Permission to photocopy for personal or internal reference beyond the limits in Sections 107 and 108 of the U.S. Copyright Law is granted by the American Society of Civil Engineers for libraries and other users registered with the Copyright Clearance Center, 21 Congress Street, Salem, Mass. 01970, provided the appropriate fee is paid to the CCC for all articles bearing the CCC code. Requests for special permission or bulk copying should be addressed to the Manager, Journals, American Society of Civil Engineers. Copies of reprinted papers can be ordered by using the coupon published in *ASCE News* and *ASCE Publications Information*.

## CONTENTS

<b>Seismically Induced Fluid Forces on Elevated Tanks</b> <i>by Medhat A. Haroun and Hamdy M. Ellaithy</i> <i>(Technical Council on Lifeline Earthquake Engineering)</i> .....	1
<b>The Microcomputer in C.E. Education: A Survey</b> <i>by James F. McDonough</i> <i>(Technical Council on Computer Practices)</i> .....	16
<b>Heavy Oil Mining—An Overview</b> <i>by Tracy J. Lyman and Edwin M. Piper</i> <i>(Technical Council on Cold Regions)</i> .....	20
<b>Response of Semi-Submersibles in Ice Environment</b> <i>by M. Arockiasamy, D. V. Reddy, D. B. Muggeridge,</i> <i>and A. S. J. Swamidas</i> <i>(Technical Council on Cold Regions)</i> .....	33

---

The Journal of Technical Topics in Civil Engineering (ISSN 0733-9461) is published aperiodically by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, NY 10017-2398. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, NY 10017-2398. Allow six weeks for change of address to become effective. Subscription price to members is \$10.00. Nonmember subscriptions available; prices obtainable on request.

POSTMASTER: Send address changes to Journal of Technical Topics in Civil Engineering, ASCE, 345 East 47th Street, New York, NY 10017-2398.

The most recent issues of this journal, formerly known as the Journal of the Technical Councils of ASCE, were published in May 1982, November 1982, April 1983, August 1983, and May 1984.

The Society is not responsible for any statement made or opinion expressed in its publications.