

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

EM 1110-1-4005

CEMP-CE

Manual
No. 1110-1-4005

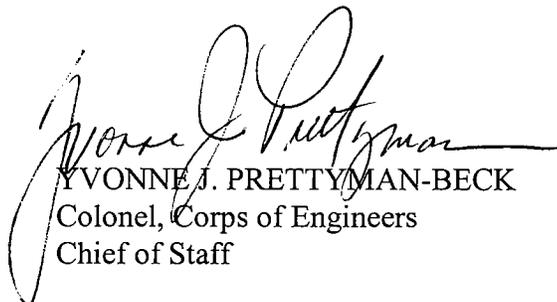
31 January 2008

Engineering and Design
IN-SITU AIR SPARGING

1. **Purpose.** The primary purpose of this Engineer Manual (EM) is to provide practical guidance for evaluation of the feasibility of in-situ air sparging (IAS) for remediation of contaminated groundwater and soil. A secondary purpose is to describe design and operational considerations for IAS systems.
2. **Applicability.** This EM applies to all USACE commands having Civil Works and/or Military Programs hazardous, toxic, or radioactive waste (HTRW) project responsibilities.
3. **References.** References are provided in Appendix A.
4. **Distribution Statement.** Approved for public release, distribution is unlimited.
5. **Discussion.** IAS is now an established remediation technology. This manual provides the information needed to help assure the appropriate applicability of this technology. Designers and decision makers should use this manual to help them determine the necessary site characterization information needed, and to use that information to evaluate the potential effectiveness of IAS on their sites. The design and operational considerations discussed herein should be used as a guide for designers and reviewers. This revision to the manual addresses recent developments in the technology since 1997. Designers are encouraged to use the resources provided in this manual to monitor new developments in the design and operational aspects of IAS systems.

FOR THE COMMANDER:

4 Appendices
App A - References
App B - Henry's Law Constants
App C - Air Velocity Measurement
App D - Index



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