



• Web-Page: <http://ww.arofe.army.mil/AROindex.htm> ; WEB Info: DAndreaG@arofe.army.mil

Desktop News: <http://www.desktopnews.com/download/AroSetup.exe> .. Explore / click on any of the Blue Items!

ARO-FE / Conferences / International Conferences

Dec 10-13/01 Environmental Catalysis

ARO-FE / C

Dec 10-14/

- ARO HOME
- ARL-ERO
- TRI-SERVICE ASIA

04314

Search

- INTRODUCTION
- OBJECTIVES
- SUPPORT
 - Conferences
 - Workshops
 - Exchange Visits
 - Research Proposals
- LATEST ITEMS
 - ARO-FE Topics
 - Reports
 - Tech Briefs
 - NSF S&T Highlights
- CONFERENCES
 - Upcoming:
 - International
 - Domestic(Japan)
 - Recent Abstracts
- QUARTERLY REPORTS
- ONE_PAGE REPORTS
- ARO 2001 REVIEW
- ARCHIVES
- CONTACT INFORMATION

Soil Remediation and Prospective in Japan

This is the first of three articles on Soil Remediation in Japan. The second article will be on NEDO Project on Soil Remediation, while the third one will be on the New Soil Remediation Technology in Japan. Soil Remediation is a big problem in Japan. In 1997, the polluted soil was reported to be located in 40-50 places. In 1999-2000, the number of polluted places increased to 110-120 at an estimated clean-up cost of 50 billion yens. In the future, it has been estimated that 320,000 places must be remediated at an approximate cost of 10 trillion yens.

The Japanese Government is presently working on a law for Soil Remediation. This law will be very similar to the Super Fund Law in USA, and the landowner must remediate the soil if he pollutes it. The ministry of land, infrastructure and transport (MLIT) Japan will be responsible to gather land history database and make it available to the public. The companies working on Soil remediation are now mainly the general contractors such as Shimizu, Kajima, Taisei, Obayashi, Toda/Nishimatsu and Hazama etc. The following companies have already joined the contractors - Kurita Water Industry, Organo, Maezawa Industry (Water treatment company), Dowa Mining, Mitsubishi Materials (Mining company), Asia Air Survey, Kokusai Kogyo, Oyo Corp (Land survey) etc., and in the near future, the shipbuilding, heavy industry and steel production companies such as Mitsui Engineering & Shipbuilding, Mitsubishi Heavy Industry, NKK and Nippon Steel will enter into this business. The soil remediation is mainly conducted for the soil polluted by the chlorinated volatile organic compounds such as DCE (Di-chloro-ethylene), TCE (Tri-chloro-ethylene) and PCE (Tetra-chloro-ethylene), heavy metals such as Hg, Cr and As, and PCB/Dioxins. The oil is not presently considered a pollution substance but soon, it will be regarded as a polluting material for soil and groundwater. The environmental quality standard for soil pollution and groundwater pollution in Japan are listed in Figs # 1 & 2. Figs. #3 & 4 show penetration & illustration of pollutants in soil.

 Soil.doc		
Figure #1		
 "Ground Water.doc		
Figure #2		
		Figure #3

Last Revised: 11/23/01

WEB Info: DAndreaG@arofe.army.mil

WEB Master: suzukim@ditcfe.disa.mil