

Danny D. Reible, PhD PE BCEE NAE

*Bettie Margaret Smith Professor of Environmental Health Engineering
Environmental and Water Resources, C1786, University of Texas, Austin, TX 78712
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EDUCATION

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|-----------------------------|----------------------|------------------------|------|
| • Lamar University | Chemical Engineering | B.S. w/ highest honors | 1977 |
| • California Inst. of Tech. | Chemical Engineering | M.S. | 1979 |
| • California Inst. of Tech. | Chemical Engineering | Ph.D. | 1981 |

PROFESSIONAL EXPERIENCE

- Chaired Professor, Civil Engineering, The University of Texas at Austin 8/04 to current
- Coordinator, Environmental and Water Resources, The University of Texas at Austin 8/07 to current
- Director, EPA Hazardous Substance Research Center/South and Southwest 8/95 to current
- Chevron Professor of Chemical Engineering, Louisiana State University 10/81-8/04
- Shell Professor of Environmental Engineering, University of Sydney 7/93-7/95

STUDENT SUPERVISION

- Ph.D. Students: Advisor for 12 students who have completed their PhD and currently advising 5
- M.S. Students: Advisor to 29 students who have completed the M.S. degree

SUMMARY OF RESEARCH ACTIVITIES

Expertise includes sources, transport and fate of multimedia environmental contaminants and the assessment and remediation of contaminated sites. Studies have involved a wide range of scales and methods, including bench-scale, pilot, and field experiments, and computer modeling. Primary current interest is the assessment and remediation of contaminated sediments. Dr. Reible has served as PI on projects totaling in excess of \$20 million and has authored/edited 4 books, more than 20 chapters in books, and more than 80 refereed journal papers.

RECENT HONORS AND AWARDS

2009 Fellow, American Association for the Advancement of Science

2007 Fellow, American Institute of Chemical Engineers

2005 National Academy of Engineering

Cited for the development of widely used methods of managing contaminated sediments

2004 Diplomate Environmental Engineer *by eminence*, American Academy of Environmental Engineers

2004 Professor and Director Emeritus, Louisiana State University

2001 L.K. Cecil Award of the Environmental Division of the American Institute of Chemical Engineers

RELEVANT PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science, Air & Waste Management Assoc., American Institute of Chemical Engineers, American Chemical Society, American Society of Civil Engineering, American Academy of Environmental Engineers, American Geophysical Union, American Society for Engineering Education, Association of Environmental Engineering and Science Professors, Sigma Xi, Society of Environmental Toxicology and Chemistry, National Academy of Engineering, Water Environment Federation

RECENT PROFESSIONAL ACTIVITIES

Member, National Research Council Board of Environmental Studies and Toxicology (2005-), Committee on Dredging Effectiveness (2006-2008), Committee on OMB Risk Assessment Guidelines (2006-2008)

Associate Editor or Editorial Board, *Chemical Engineering Journal* (2000-2007), *Journal of the Air and Waste Management Association* (2004-), *Journal of Environmental Forensics* (2006-), *Journal of Environmental Engineering* (2006-)

Director, NATO Advanced Research Workshop on Assessment and Remediation of Contaminated Sediments Bratislava 2005; National Science Foundation Pan-American Advanced Study Institute on In-Situ Assessment and Remediation of Contaminated Sites, 2002, Rio de Janeiro, Brazil; NATO Advanced Study Institute on In-Situ Remediation of Contaminated Sites, 2001, Prague, Czech Republic

SELECTED RECENT PUBLICATIONS:

Books and Recent Book Chapters (5 books and more than 25 book chapters)

1. Reible, D.D. "Contaminant Processes in Sediments," in Sedimentation Engineering- ASCE Manual Volume 110, Ed. Marcel Garcia. (2008)
2. Reible, D.D. and L.J. Thibodeaux, Particle and soluble release of organic contaminants from the sediment bed, Chemistry in the Environment, Italian Interuniversity consortium (INCA), Rome, Italy (2006)
3. Reible, D.D. and G. V. Lowry, In situ cap and treat technologies for contaminated sediments, Chemistry in the Environment, Italian Interuniversity Consortium (INCA) Rome, Italy (2006)
4. Danny D. Reible and Tomas Lanczos, Ed. Assessment and Remediation of Contaminated Sediments, NATO Science Series IV, Earth and Environmental Sciences Vol. 73. Springer-Verlag, Dordrecht, Netherlands (2006)
5. Calvin C. Chien; Miguel A. Medina, Jr.; George F. Pinder; Danny D. Reible; Brent E. Sleep; and Chunmiao Zheng, Ed. *Contaminated Ground Water and Sediment*, CRC Press (2004)
6. Reible, D., K. Demnerova, Ed. *In-Situ Assessment and Remediation of Contaminated Sites*, NATO Science Series in Environmental Sciences, Kluwer, Netherlands (2002)
7. Choy, B. and D.D. Reible, *Diffusion Models of Environmental Transport*, CRC Press (2000) 184 pp.
8. Reible, D.D. *Fundamentals of Environmental Engineering*, CRC Press (1999) 526 pp.

National Research Council Reports

1. O'Melia, C.R., G.A. Burton, W.H. Clements, F.C. Curriero, D.Di Toro, N.R. Francingues, R.G. Luthy, P.L. McCarty, N. Musgrove, K.N. Probst, D.D. Reible, L.J. Thibodeaux, D.J. Voorhees, J. Wolfe, *Assessing the Effectiveness of Dredging at Superfund Megasites*, National Academy Press (2007)
2. Ahearne, J.F., G.V. Alexeff, G.B. Baecher, A. J. Bailer, R. M. Cooke, C.E. Feigley, B. Fischhoff, C. P. Gerba, R. H. Goldman, R. Haveman, W. E. Kastenber, S. Katzen, E. Miranda, M. Newman, D. E. Patton, C. Poole, D.D. Reible, J. V. Rodricks, *Scientific Review of the Proposed Risk Assessment Bulletin from the Office of Management and the Budget*, National Academy Press (2007)
3. Bouwer, E.J., Parkin, G.F., Garland, S.B., Haas, P.E., Johnson, R., Lorah, M.M., Pohland, F.G., Reible, D.D., Siegel, L.M., Small, M.J., Stahl, R.G., Stark, A.D., Valocchi, A.J., Walsh, W.J., Welty, C., *Environmental Cleanup at Navy Facilities: Adaptive Site Management* National Academy Press (2003)
4. Farrington, J. W., R. Loehr, E. Anderson, W. F. Bohlen, Y. Cohen, K. Farley, J. Giesy, D. Henshel, S. Lester, K. Liegel, P. McCarty, J., O'Donoghue, J. Opaluch, D. Reible, *A Risk Management Strategy for PCB-Contaminated Sediments*, National Academy Press (2001)

Recent Journal Publications (more than 90 total journal publications)

1. Yuan, Q., K.T. Valsaraj, D.D. Reible, A Model for Contaminant and Sediment Transport via Gas Ebullition through a Sediment Cap, In press, Environmental Engineering Science
2. Lampert, D.J., D. D. Reible, An Analytical Modeling Approach for Evaluation of Capping of Contaminated Sediments, Soil and Sediment Contamination: An International Journal, 18, 4, 470-488 (2009)
3. Go, J., D.J. Lampert, J.A. Stegman, D.D. Reible, Predicting contaminant fate and transport in sediment caps: Mathematical modeling approaches, Journal of Applied Geochemistry, 24, 7, 1347-1353 (2009)
4. Barth, E., D. Reible and A. Bullard, Evaluation of the physical stability, groundwater seepage control, and faunal changes associated with an AquaBlok® sediment cap, Remediation: The Journal of Environmental Cleanup Costs, Technologies and Techniques, 18, 4, Fall (2008) (p 63-70)
5. Knox, A.S., M.H. Paller, D.D. Reible, X.Ma, I.G. Petrisor, "Sequestering Agents for Active Caps- Remediation of Metals and Organics", Soil and Sediment Contamination, 17 (5) 516-532 (2008)
6. Gustavson, K.E., G.A. Burton, N.R. Francinques, D.D. Reible, D.J. Vorhees, J.R. Wolfe, "Evaluating the effectiveness of contaminated sediment dredging", Environmental Science and Technology, 42, 14, 5042-5047 (2008)Liu, J., D. Reible, KT Valsaraj, R. Delaune, I Devai, "Observations of mercury fate and transport beneath a sediment cap", Land Contamination and Reclamation (2008)
7. Yuan, Q., KT Valsaraj, DD. Reible and CS Willson, "A laboratory study of sediment and contaminant release during gas ebullition," Journal of the Air and Waste Management Association, 59, 9 (2007)
8. Chai, Y., A. Kochetkov, D.D. Reible, The Use of Coarse, Separable, Condensed-Phase Organic Carbon Particles to Characterize Desorption Resistance of Polycyclic Aromatic Hydrocarbons in Contaminated Sediments, Environmental Toxicology and Chemistry, 26 , 7 1380-1385 (2007)

9. McDonough, K.M., P. Murphy, J. Olsta, Y. Zhu, D. Reible, G. Lowry, Development and Placement of a Sorbent-amended Thin Layer Sediment Cap in the Anacostia River, *Journal of Soil and Sediment Remediation* 16:3, 313-322 (2007)
10. Reible, D.D., D. Lampert, W. D. Constant, R.D. Mutch, and Y. Zhu, Active Capping Demonstration in the Anacostia River, Washington, DC, *Remediation: The Journal of Environmental Cleanup Costs, Technologies and Techniques*, 17, 1, Winter (2006)
11. Chai, Y. A. Kochetkov and D.D. Reible, Modeling Biphasic Sorption And Desorption Of Hydrophobic Organic Contaminants In Sediments, *Environmental Toxicology and Chemistry*, 25, 12, 3133-3140 (2006)
12. Chai, Y. A. Kochetkov and D.D. Reible, Sorption Kinetics of Hydrophobic Organic Compounds to Natural Sediments and Soils, *Environmental Toxicology and Chemistry*, 25, 11, 2827-2833 (2006)
13. Lu, X., D.D. Reible, J.W. Fleegee, Bioavailability of Polycyclic Aromatic Hydrocarbons in Field-Contaminated Anacostia River (Washington, DC) Sediment, *Environmental Toxicology and Chemistry*, 25, 11, 2869-2874 (2006)
14. Murphy, P. A. Marquette, D. Reible, and G. V. Lowry Predicting the Performance of Activated Carbon-, Coke-, and Soil-Amended Thin Layer Sediment Caps, *Journal of Environmental Engineering*, 132,7 (2006)
15. Gomez-Hermosilla, C., J. H. Pardue, D.D. Reible, Wetland plant uptake of desorption resistant contaminants from sediments, *Environmental Science and Technology* 40, 3229-3236 (2006)

CURRENT PROFESSIONAL ACTIVITIES

Current Research Projects

- DC/LSU – Monitoring of Anacostia Active Capping Demonstration Program (2004-2008) \$337K PI
- Oregon DEQ – Organoclay for control of NAPL in sediments (2004-2009) \$250K PI
- CETCO – Investigation of organoclays for sediment remediation (2004-2009) \$110K PI
- SERDP - Innovative In-Situ Remediation of Contaminated Sediments for Simultaneous Control of Contamination and Erosion (2006-2009) \$990K co-PI (\$300K UT)
- ESTCP - Demonstration and Evaluation of Solid Phase Microextraction for the Assessment of Bioavailability and Contaminant Mobility (2006-2009) \$720K PI (\$420 K UT)
- Parsons – Biodegradation in Sediment Caps (2007-2009) \$580K PI
- EPRI – Laboratory Studies of Organoclay for MGP wastes (2007-2009) \$115K PI (UT)
- NIH – Remediation of contaminated sediments using Waterjet Amendment (2007-2010) RO1co-PI (75K UT)
- NIH – Funnel and gate Innovations for Containment and Treatment of Contaminated Sediments (2007-2010) RO1 900K PI

Current Consulting and Expert Witness Activities

Consultant on evaluation and selection of sediment remedial approaches, U-864, Fedje Island, Norway; Lower Passaic River, NJ; Berry's Creek, NJ; Grasse River, Massena, NY; Onondaga Lake, Syracuse, NY; Fox River, WI; Zidell Marine, Portland, OR; Ross Island, Portland, OR
 Expert witness on phenol fire release and exposures, Plaquemine, LA; dioxin release and exposures, Bay St. Louis, MS; railroad tank car fire and spill, Shreveport, LA; chemical fire, Lake Charles, LA; EDC spill, Lake Charles, LA