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Education:

State University of New York at Stony Brook, Ph.D., 1981
Long Island University, MS, 1970
C. W. Post College, BS, 1968

Fields of Competence:

Dr. Roethel is a Research Professor in the Waste Reduction and Management Institute, Marine Sciences Research Center, at the State University of New York at Stony Brook. His research program is directed towards examining marine pollution within the coastal zone and the associated fields of environmental and solution chemistry primarily affiliated with waste products introduced into the marine environment. Dr. Roethel has over twenty years experience evaluating the behavior of combustor residuals, primarily coal fired power plant wastes and MSW combustor ash. Dr. Roethel was appointed to the U.S. EPA's International Advisory Commission on MSW Stabilization and Utilization. He has over 50 publications pertaining to the physical, chemical and environmental characteristics of waste materials, the impact on the marine environment and the potential beneficial uses of combustion by-products.

Employment History:

Present	Research Professor -- SUNY at Stony Brook, <u>and</u> Professor Emeritus, Department of Physical Sciences, Nassau Community College
1976 - 1982	Associate Professor, Nassau Community College
1979	Visiting Associate Professor, Marine Sciences Research Center, SUNY
1972 - 1976	Assistant Professor, Nassau Community College

Memberships:

Sigma Xi
AAAS
American Society of Limnology and Oceanography
New York Academy of Sciences

Publications:

- Duedall, I. W., F. J. Roethel, J. D. Seligman, J. H. Parker, H. B. O'Connors, P. M. J. Woodhead, B. K. Roberts, H. Mullen and B. Chezar. (1979). Physical and Chemical Behavior and Environmental Acceptability of Stabilized Scrubber Sludge and Fly Ash in Seawater. In: Ecological Assessments of Effluent Impacts on Communities of Indigenous Aquatic Organisms. American Society of Testing and Materials, Philadelphia, Pa.
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- Woodhead, P. M. J., I. W. Duedall, J. H. Parker and F. J. Roethel. (1984). The Use of By-Product Ash from Coal Combustion for Artificial Reef Construction. In: The Use of Artificial Reefs as a Fisheries Management Strategy in the Great Lakes. F. M. D'Itri (ed.) Ann Arbor Science Publishers.
- Roethel, F. J. and S. A. Oakley. (1985). Effects of Seawater on the Mineralogical and Chemical Composition of Stabilized Coal Waste Blocks. In: Wastes in the Ocean, Volume 4. Duedall, I. W., B. H. Ketchum, D. R. Kester and P. K. Park (eds.) John Wiley and Sons, Inc. New York.

Publications: (Continued)

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- Roethel, F. J., V. Schaeperkoetter, R. Gregg and K. Park. (1986). The Fixation of Incineration Ash: Physical and Leachate Properties. MSRC Working Paper #24 (Ref. 86-2) February 1986. Waste Management Institute, Marine Sciences Research Center, SUNY at Stony Brook, 138 pp.
- Roethel, F. J., V. Schaeperkoetter, R. Gregg and K. Park. (1986). The Fixation of Incineration Residues. MSRC Working Paper #26 (Ref. 86-11) Final Report, August 1986. Waste Management Institute, Marine Sciences Research Center, SUNY at Stony Brook, 276 pp.
- Roethel, F. J. (1987). Ash Disposal Solution is 2000 Years Old. Waste Age 18-2: 66-69.
- Roethel, F. J., Breslin, V. T. and P. M. J. Woodhead. (1988). Marine disposal of stabilized incinerator residues. Proceeding of the Incinerator Ash Research Seminar. T. T. Eighmy and J. A. Minichello (eds.). New England Center, University of New Hampshire Durham, NH May 1987.
- Roethel, F. J., Breslin, V. T., Schaeperkoetter, V. and P. M. J. Woodhead. (1988). Stabilized incineration residue: A possible substrate for artificial reef construction. In: Proceedings Waste Tech. 1987. S. Pirages (Ed). October 1987. pp. 1-11
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- Shieh, C.-S. and F. J. Roethel. (1989). Physical and Chemical Behavior of Stabilized Sewage Sludge Blocks in Seawater. Environ. Sci. Technol. 23, 121-125.
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- Roethel, F. J., V. T. Breslin and B. G. Lee. (1989). Artificial Reef Construction using Stabilized Incineration Residues: Year 2. In: Proceedings of the Municipal Solid Waste Technology Conference, San Diego, CA. Jan. 30-Feb. 1, 1989.
- Breslin, V. T. and F. J. Roethel. (1989). Utilization of Stabilized Incineration Residues. In: Proceedings of the Seventh Annual Virginia Waste Management Conference. Richmond, Va. April 25-26, 1989. pp. 219-229.
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Roethel, F. J., (1995) Analytical Concerns Associated with the Toxicity Characteristics Leaching Procedure. In: Proceedings of the Seventh International Conference on Municipal Solid Waste Combustor Ash Utilization. Washington, D.C. November 1994.

Nagourney, S. J., N. J. Tummillo, M. Winka, W. H. Chesner, C. Stein and F. J. Roethel (1996). The TCLP Test for Metals -- Selection of Extraction Fluid for Bottom Ash Testing. In: Proceedings of the Eight International Conference on Municipal Solid Waste Combustor Ash Utilization. Washington, D.C. November 1995.

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Liberti, L., M. Notarnicola, V. Amicarelli, V. Campanaro, F. Roethel and L. Swanson. (1998). Mercury removal with powdered activated carbon from flue gases at the Coriano municipal solid waste incineration plant. Waste Manage Res. 16: 183-189

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Millrath K., Roethel F.J. and Kargbo D. K. (2004) Waste-To-Energy Residues – The search for Beneficial Uses. In: Proceedings of the 12th North American Waste to Energy Conference (NAWTEC 12). Savannah, Georgia.