

Anthony Joseph Tarquin
The University of Texas at El Paso
El Paso, Texas 79968
Telephone (915) 747-6915

PERSONAL DATA:

Marital Status: Unmarried
Place of Birth: Follansbee, W. Virginia
Date of Birth: July 10, 1941

EDUCATION

West Virginia University, Morgantown, W. Va., 1959-1964 BSIE (Industrial Eng.)
West Virginia University, Morgantown, W. Va., 1964-1965 MSE (Air Pollution)
West Virginia University, Morgantown, W. Va., 1965-1969 PhD (Environmental)

PROFESSIONAL REGISTRATION AND LICENSES:

P.E. Texas #38690
P.E. West Virginia #5626 (Inactive)
State of Texas Class C Wastewater Treatment Plant Operator's License (inactive)
State of Texas Grade D Water Plant Operator's License (inactive)

EMPLOYMENT

September 1969 – Present
The University of Texas at El Paso, Civil Engineering Department as
Assistant Professor (1969), Associate Professor (1973), and Professor (1991)

December 1976 - August 1979; and December 1987 - August 1989
Assistant Dean, College of Engineering

September 1989 - August 1990
Interim Chairman, Dept. of Civil Engineering

January 1991 - present
Adjunct Professor at New Mexico State University

RESEARCH

Received 61 grants totaling over \$2.9 million, most in the areas of water and wastewater treatment and a few related to teaching effectiveness.

PUBLICATIONS

Have over 100 professional publications in all types of journals (research, teaching, refereed, non-refereed, proceedings). Currently have 3 books in print, one in five different languages.

AWARDS

Received University's highest teaching award (distinguished achievement) in 1993.

One patent pending (in area of water recovery from RO concentrate).

HONORS

Permanent Endowment Established at UTEP in my name (by former students & others)

Contracts and Grants

1. "Effects of High Concentrations of Waste Paper on Aerobic Sludge Digestion," University Research Institute, 1969-70, \$900.
2. "Pilot Studies on Aerobic Sludge Digestion," Parkhill, Smith & Cooper Consulting Engineers, 1970-71, \$600.
3. "Use of Waste Paper as Carbon Source for Biological Denitrification," University Research Institute, 1971-72, \$1,880.
4. "Reclamation of Wastewater from Meatpacking Industry by Soil Treatment," Environmental Protection Agency, 1972-76, \$220,924
5. "Chemical Analysis of Water from Elephant Butte Reservoir," U.S. Bureau of Reclamation, 1972-73, \$1,000.
6. "Chemical Analysis of Water from Elephant Butte Reservoir," U.S. Bureau of Reclamation, 1973-74, \$500.
7. "Undergraduate Research Participation," with Jack Dowdy, National Science Foundation, 1974-75, \$7,800.
8. "Evaluation of Low Cost Solar Energy Systems," with Jack Dowdy, URI, 1976-77, \$1,500.
9. "Texas Energy Extension Service," proposal prepared with Scott Edwards was funded by ERDA through Texas A & M University, January 1978-June 1979, \$99,000.
10. "Acid Hydrolysis of Cellulosic Biomass," with Gary Hawkins, Southwest Resource Center for Science and Engineering, June 1980-August 1982, \$11,336.

11. "Teaching Computer Programming Using Take-Home Computers," with L. Craver and D. Schroder, funded by U.T. El Paso, September 1980-May 1981, \$11,000.
12. "Application of Technology for Improved University Education," with L. Craver and D. Schroder, funded by U.T. El Paso, January-August 1982, \$15,500.
13. "Time Compression of Videotaped Lectures," with L. Craver and D. Schroder, funded by U.T. El Paso, September-December 1981, \$7,000.
14. "Field and Modeling Studies of Land Disposal of Cadmium-Laden Industrial Wastewater Sludge," with V. Gupta, Monsanto Textiles, April 1981-December 1983, \$20,436.
15. "Optimization of Pumping in Water Distribution-Nevins Booster Station," with Jack Dowdy, City of El Paso, June-Dec. 1984, \$16,913.
16. "Transportation Technology Transfer Center," Co-principal investigator, FHWA, April 1985-August 1986, \$30,000.
17. "Need for Spanish Language Transportation Technology Transfer Center," Co-principal investigator, FHWA, October 1985-August 1986, \$36,000.
18. "Transportation Technology Transfer Center", Co-principal Investigator, FHWA, Oct. 1986 - Sept. 1990, \$72,500.
19. "Effectiveness of ClO₂ in Water Treatment", City of El Paso, June-Sept. 1989, \$4,682.
20. "Chlorine Dioxide and Activated Carbon for THM Control", City of El Paso, May-Sept 1990, \$14,316.
21. "Effect of Surge Suppressors on Motor Efficiencies", with Dr. Darrell Schroder, City of El Paso, Aug-Nov 1990, \$10,049.
22. "Waste Characterization for the Maquiladora Industry", with Dr. H. Fuentes, Institute for Manufacturing and Materials Management, UTEP, Aug. 1990-Aug 1991, \$45,000.
23. "Wastewater Pretreatment Survey at Fort Bliss, Texas," DIS, Dept. of the Army, Dec. 1990-June 1991, \$29,455.
24. "Effectiveness of an On-Site Anaerobic Filter for Treating Household and Other Small Wastewater Flows", submitted to On-Site Wastewater Research Council, Texas Dept. Health, Jan. 1991-Jan. 1993, \$89,337.
25. "Evaluation of Solid Waste Recycling at Fort Bliss, Texas", DIS, Dept. of the Army, May-Dec. 1991, \$21,561.
26. "Assessment of Selected Water Treatment Operations", El Paso Water Utilities, June-Oct.

1991, \$16,483.

27. "Evaluation of Ferrous Chloride for Total Oxidant Control and Inhibitors for Corrosion Control", City of El Paso. June-December, 1992, \$16,979.
28. "Use of Ferrous Chloride for Oxychlorine Residual Control During ClO_2 Treatment of Drinking Water," Camp Dresser, and McKee, July-Dec. 1993, \$12,000.
29. "Disinfection By-Product Removal from Recycled Wastewater", with Dr. C. Turner, USEPA through CERM, August 1992-December 1993, \$94,950.
30. "Effectiveness of Low Cost On-Site Systems for Treating Household and Other Small Wastewater Flows," On-Site Wastewater Treatment Research Council, Texas Water Commission, Jan 1993-Jan. 1995, \$168,516.
31. "Evaluation of Ozone, Activated Carbon, and Chlorine Dioxide for THM Control," El Paso Water Utilities, June-Dec. 1994, \$17,527.
32. "Long Term Performance of Cementitious Waste Forms in the Unsaturated Zone: The Role of Soil Gases," with Dr. John Walton, USEPA through CERM, August 1994-December 1995, \$95,948.
33. "Determination of GAC Life for Taste and Odor Control at the City of El Paso Water Treatment Plants," El Paso Water Utilities, May-Dec. 1995, \$17,615.
34. "Teaching Freshmen Engineering Design Using LabView," with Darrel Schroder and Lionel Craver, Model Institutions for Excellence Program, UTEP, April-August 1996, \$61,790.
35. "Virtual Engineering Laboratories Equipment Proposal," with Lionel Craver, Darrell Schroder and Ryan Wicker, Model Institutions for Excellence Program, UTEP (from NSF), August-September, 1996, \$185,000.
36. "Optimization of Chemical Treatment for Turbidity Removal" El Paso Water Utilities, May-Dec, 1996, \$10,000.
37. "Creation of An Economic Development Strategy for the Sustainable Use of Water in the Paso Del Norte Region" with several other investigators through CERM, May 1996-March 1997, \$23,000 (my portion).
38. "Optimal Application of Polymers for Turbidity Control in Water Treatment", El Paso Water Utilities, Feb-Dec 1997, \$9,996
39. "Improving Water Treatment Plant Operations Through Process Optimization", El Paso Water Utilities, Sept '97-Aug '98, \$9,996
40. "Comparison of Two ClO_2 Generation Technologies on DBP Formation", Eka

Chemicals, June-Jan 1999, \$7,553

41. "Economic and Overall Comparison of ClO₂ Generation Technologies", El Paso Water Utilities, June-Jan 1999, \$9,992
42. "Evaluation of a Simplified Cash Award Program for Water Conservation", U.S Bureau Reclamation, Sept 1997- March 2000, \$25,000
43. "Evaluation of Peroxone and Tank Covers for Control of THM and Other By-Products and Pollutants", El Paso Water Utilities, June-Dec 1999, \$9,996
44. "Water Use for Evaporative Cooling", U.S Bureau Reclamation, Apr 1999- March 2000, \$22,500
45. "Enhanced Ultrafiltration for TOC, THM, and Taste and Odor Control", UTEP/EPA Cooperative Agreement, Jan 2000-May 2001, \$38,705
46. "Optimization of Water Treatment Plant Operations and Processes", El Paso Water Utilities, April 2000-March 2003, \$75,000
47. "Development of Brine Concentration Process for High-Silica Water", U.S. Bureau of Reclamation, Oct 2002 – March 2004, \$100,000
48. "THM Removal Thru Aeration and Water Loss Reduction During Primary Sludge Wasting", El Paso Water Utilities, March 2003 – Sept 2004, \$50,000
49. "Pilot Studies for Lime Treatment of Silica-Saturated RO Concentrate", El Paso Water Utilities, Aug 2003 - Dec 2004, \$39,100
50. "Maintenance and Operation Of Brine Desalting Plant", El Paso Water Utilities, Aug 2004 - Sept, 2005, \$13,000
51. "Volume Reduction of Silica-Saturated RO Concentrate", U.S. Bureau of Reclamation (thru EPWU), Oct 2004 - Sept 2005, \$98,000
52. "Full Scale Demonstration of THM Removal Via Induced Draft Column Degassing", El Paso Water Utilities, Dec 2004 - March 2006, \$50,000
53. "Analysis of Water Samples from Montana Booster Station Desalting Pilot Plants", El Paso Water Utilities, March 2004 – Feb 2005, \$5000
54. "Membrane Treatment of Rio Grande Water for Municipal Water Production During the Non-Irrigation Season", Southwest Center for Environmental Research and Policy, June 2006-Aug 2007, \$45,000
55. "Volume Reduction of RO Concentrate Using VSEP Technology", El Paso Water Utilities, June 2006-June 2007, \$48,600

56. "Membrane Treatment of Impaired Irrigation Return and Other Flows for Creating New Sources of Drinking Water", AWWARF, U.S. Bureau of Reclamation, El Paso Water Utilities, Sept 2006–Jan 2008, \$156,362
57. "Treatment of Silica-Saturated RO Concentrate with a Seawater RO System, El Paso Water Utilities, March 2007–Aug 2009, \$50,000
58. "High Tech Methods to Reduce Concentrate Volume Prior to Disposal", El Paso Water Utilities and Texas Water Development Board, Oct 2007- Aug 2009, \$149,000
59. "Desalination of Irrigation Return Flows in the Rio Grande", El Paso Water Utilities, December, 2009-Oct 2010, \$137,042
60. "Continuous Flow Seawater RO System for Recovery of Silica-Saturated RO Concentrate", El Paso Water Utilities, WateReuse Foundation, and Texas Water Development Board, Dec 2009 – Jan 2011, \$128,000
61. "High-Volume Water Recovery from Silica-Saturated RO Concentrate Using a Batch-Treatment Seawater RO System", U.S. Bureau of Reclamation, El Paso Water Utilities, University of Texas at El Paso, Oct 2010 – Sept 31, 2012, \$285,053
62. "RO Concentrate Minimization and Sustainable Utilization of By-Product Solids", with Vivek Tandon and Guillermo Delgado, Jan 2013-Dec 2013, Anita Mochen Loya Fund, \$25,000
63. "Evaluation of Filter Press Performance at Haskell Street Wastewater Treatment Plant", El Paso Water Utilities, June-Sept, 2014, \$12,111

Presentations

1. "Spray Irrigation of Meatpacking Wastewater," presented at Industrial Water and Pollution Control Conference and Exposition. March 16-18, 1973. Chicago, IL.
2. "Sewage Disposal: Small Systems, Septic Tanks, Compact Units, Package Plants," Texas State Department of Health Seminar, June 21, 1973.
3. "Treatment of Meatpacking Plant Wastewater by Land Application," New Mexico State University Chapter of Sigma Xi, Oct. 1984.
4. "Low Pressure Spray Irrigation of Meatpacking Plant Wastewater," presented at 1975 Annual American Society of Agricultural Engineers Conference, University of California at Davis. June 22-25, 1975.
5. Stockton, J.S., Caigoy, P.R., Tarquin, A., and Jones, L.P., "Three Methods of Disposal of

Slaughterhouse Effluent: A Comparison of the Microbiological Properties of Each," presented at ASM, April 27-May 2, 1975, New York.

6. Caigoy, P.R., Tarquin A. and Jones, L.P., "Microbial Aerosols," presented at 3rd Annual Xavier-MBS Biochemical Symposium, April 27-30, 1975, New Orleans, LA.
7. Economics of Solar Hot Water and Space Heating," presented at Sun Energy 1978 Conference, El Paso, Texas, April 1978.
8. "Overview of UTEP Solar Research Activities," Workshop: El Paso City Code for Energy Conservation, U.T. El Paso, March 12, 1979.
9. "Land Disposal of High Cadmium Sludge," presented at 52nd Annual Conference, Water Pollution Conference Federation, October 7-12, 1979, Houston, TX.
10. "Inflation Consideration in Economic Analysis," presented at IV Semana de Produccion Conf., Instituto Tecnologico de Chihuahua, November 3-7, 1980, Chihuahua, Mexico.
11. "Time Compressed Videotapes," Annual Conference of ASEE, Rochester, N.Y., June 1983.
12. "Improving Teaching Through Instructional Television," co-presented with Drs. L. Craver and D. Schroder, University of Texas at El Paso Teaching Effectiveness Committee, March 1984.
13. "Effectiveness of Time-Compressed Videotapes for College Teaching," co-presented with Drs. L. Craver and D. Schroder, UTEP Chapter of Sigma Xi, Oct. 1984.
14. "A Bright Future for Instructional Television Through Technology," co-presented with Drs. L. Craver and D. Schroder, First Regional Conference on University Teaching, New Mexico State University, Jan. 1985.
15. "Optimization of Booster Stations in Water Distribution," co-presented with Dr. J. Dowdy, ASCE Regional meeting, El Paso, TX, September, 1985.
16. "Use of Time Compressed Videotapes for Information Transfer", Texas Highway Department, Austin, Texas, August 1987.
17. "New, Innovative, and Alternative On-Site Sewage Disposal Systems for Flows Less than 5000 GPD," El Paso City County Health District Workshop, Texas A&M Agricultural Research Center, Oct. 1991.
18. "Inflation Considerations in Economic Analyses," III Symposium of Industrial Engineering and Systems, Chihuahua Mexico, April 1992.
19. "Role of Carbonation in Long Term Performance of Cementitious Wasteforms," with John Walton, et al, DOE Environmental Restoration Conference, August 1995.

20. "Long Term Performance of Cementitious Wasteforms: The Role of Soil Gasses," with John Walton et al, Southwest Section of the American Association of Petroleum Geologists, Environmental Sciences Division, Environmental Challenges at the Triple Point, p.8 (abstract and poster presentation), 1996 (Best Poster Award).
21. "Impact of Chlorine in the Generation of Chlorine Dioxide", with Doug Rittmann, American Water works Association, Feb 2000
22. "Evaluation of a Cash Award Program for Achieving Water Conservation", Texas Section ASCE, El Paso, TX, Oct 4-7, 2000
23. "Water Use Through Evaporative Cooler Bleed-Offs in the City of El Paso", with Jack Dowdy, Texas Section ASCE, El Paso, TX, Oct 4-7, 2000
24. "Brine Concentration of High-Silica Water", AWWA Desert Mountain Chapter Technical Session, Dona Ana Community College, November 2002
25. "Desalination Concentrator Research at the EPWU/Ft Bliss Desalination Pilot Plant", New Mexico Texas Water commission, Oct 2003
26. "Concentrate Disposal", Continuing Professional Development Course, ASCE Fall Section Meeting, El Paso, TX, Oct 2005
27. "Concentrate Recovery Pilot Plant Operation", Desalination: State of the Art 2008 SEMA Spring Conference, El Paso, TX, Feb. 20-22, 2008
28. "Membranes: Emerging Issues and Technologies", with Brent Alspach and Tom Pankratz, AWWA Webcast, April 16, 2008.
29. "Membrane Treatment of Irrigation Return Flows in the Rio Grande", SCERP 2008 Annual Technical Conference, Arizona State University, December 5-6, 2008
30. Ning, Robert, Tarquin, A., Balliew, John, "Seawater RO Treatment of RO Concentrate to Extreme Silica Concentrations", Poster, IDA World Congress on Desalination and Water Reuse, Dubai, UAE, November 7-12, 2009
31. "Concentrate Volume Reduction", American Membrane Technology Association, Technology Transfer Workshop, El Paso, TX, Dec 7-9, 2010
32. Peter Sanciolo, Nicholas Milne, Kelvin Taylor, Anthony Tarquin, Stephen Gray, "Silica Scale mitigation in Low pH Reverse Osmosis Operation", Ozwater'14 International Conference and Exposition, Brisbane, Australia, April 29th – May 2nd, 2014

Publications

A. Journal Articles and Proceedings

1. Tarquin, A. and Zaltman, R., "Influence on High Concentration of Waste Paper on Aerobic Sludge Digestion," Public Works, March 1970, Vol. 101, No. 3.
2. Tarquin, A., Dowdy, J. and Applegate, H.G., "Cost of Air Pollution Controls in the Power Industry," Public Utilities Fortnightly, Vol. 91, No. 7, April 1973.
3. Tarquin, A., Seraphim, A., and Zaltman, R., "Disposal of Waste Paper by Aerobic Digestion with Sewage Sludge," Waste Age, V5, No. 1, January-February 1974.
4. Tarquin, A. and Blank, L., "Self-Paced Course in Engineering Economy", ERM, Vol. 6, No. 3, March 1974.
5. Tarquin, A., "Pilot Studies on Spray Irrigation of Meatpacking Plant Wastewater by Land Application," Proceedings of the 29th Annual Purdue Industrial Waste Conference, May 1974.
6. Tarquin, A., Applegate, H.G., Rizzo, F., and Jones, L., "Design Considerations for Treatment of Meatpacking Plant Wastewater by Land Application," Proceedings, Fifth National Symposium on Food Processing Wastes, EPA-660-2-74-038, June 1974.
7. Stockton, J.S., P.R. Caigoy, H.G. Applegate, A.J. Tarquin, and L.P. Jones, "Treatment of Slaughterhouse Effluent by Soil Filtration: A Study of Microbial Populations," The Journal of the Colorado-Wyoming Academy of Sciences, 7, (5): 8-9, 1975.
8. Tarquin, A., "Treatment of Meatpacking Plant Wastewater by Land Application," Proceedings, Seventh National Symposium on Food Processing Wastes, Atlanta, Georgia, April 1976.
9. Tarquin, A., and Bautista, H., "Treatment of High Strength Meatpacking Plant Wastewater by Overland Flow," Proceedings, 31st Annual Purdue Industrial Waste Conference, Purdue University, Lafayette, Indiana, May 1976.
10. Tarquin, A., "Treatment of Meatpacking Plant Wastewater by Land Application," Proceedings, Management of Slaughterhouse and Meat Processing Wastes Conference, Waco, Texas, June 29, 1976.
11. Tarquin, A., "Land Disposal of High Cadmium Sludge," Water Engineering and Management, Reference Handbook 81, April 1981.
12. Craver, L., Tarquin, A.J., and Schroder, D., "Student Performance in Classes Utilizing Live, Videotaped, and Time-Compressed Videotaped Lectures," Collected Papers Volume, Annual Meeting ASEE Gulf Southwest Section, Louisiana Tech University, March 1983.

13. Schroder, D., A.J. Tarquin, and W.L. Craver, Increasing Productivity with Time-Compressed Videotapes," Proceedings, 1983 ASEE Annual Conference, Vol 3, June 1983.
14. Tarquin, A.J., Craver, L., and Schroder, D., "Student Performance in Televised Lectures," Journal of Professional Issues in Engineering, A.S.C.E., V 109, No. 3, July 1983.
15. Das, B.M., Tarquin, A.J., and Jones, A.D., "Geotechnical Properties of a Cooper Slag," Transportation Research Record, National Academy of Sciences, Transportation Research Record 941, 1983.
16. Schroder, D., Craver, L., and Tarquin, A.J., "Learning From Time Compressed Videotapes," IEEE Transactions on Education, E-26, (4), 168-170, Nov. 1983.
17. Tarquin, Anthony, Craver, L. and Schroder, D., "Effect of Time Compression of Videotapes on Student Learning," Journal of Professional Issues in Engineering, A.S.C.E., V 110, No. 1, 19-24, Jan. 1984.
18. Shelton, S., Echelberger, W., Tarquin, A., and Knorr, D., "Groundwater Augmentation Using Reclaimed Wastewater in El Paso - A Case History," Proceedings, Water for the 21st Century - Will it be there?, Southern Methodist University, April 1984.
19. Das, B.M., Shahibi, A.A., Tarquin, A.J., "An Empirical Relation for Coefficient of Permeability of Sand," Proceedings, 4th Australia-New Zealand Geotechnics Conference, Institute of Engineering, Australia, May 1984.
20. Tarquin, A.J., Goodwin, E., and Rittmann, Douglas, "Cost Effectiveness of Aeration and Sludge Recirculation in Water Treatment - A Case Study," Water Engineering and Management, V 131, No. 7, 1984.
21. Tarquin, A., Craver, L., and Schroder, D., "Technologically Enhanced Instructional Television," Proceedings, Frontiers in Education Conference, ASEE, p. 644-67, Oct. 1984.
22. Schroder, D., Tarquin, A. and Craver, L., "A Bright Future for Instructional Television Through Technology," Proceedings, First Regional Conference on University Teaching, New Mexico State University, Jan., 1985.
23. Das, B.M., Moreno, R., and Tarquin, A., "Model Tests for Pullout Resistance of Vertical Anchors in Clay," J. of Civil Engineering for Practicing and Design Engineers, V 4, No. 2, Feb. 1985.
24. Schroder, D., Tarquin, A., Craver, L., and Hu, P.W., "LOGO as an Introduction to FORTRAN Programming," J. of Professional Issues in Engineering, A.S.C.E., V 111, No. 3, July, 1985.
25. Tarquin, Anthony, and Echelberger, Wayne, "Phosphorous Removal Through Lime

Addition in Wastewater Treatment," Poster Presentation, TWPCA annual meeting, Corpus Christi, June 1987.

26. Tarquin, A.J. and Yeu Huei, Martin H., "Filter Conditioner - How Much is Enough," APWA Reporter, V55, No. 6 June 1988.
27. Tarquin, Anthony J., and Dowdy, Jack, "Optimal Pump Operation in Water Distribution," J. Hydraulic Division, ASCE, V115, No. 2, Feb. 1989.
28. Tarquin, Anthony J, Tsimis, Diana, and Rittmann, Douglas, "Water Plant Optimizes Coagulant Dosage," Water Engineering and Management, V136, No. 5, May 1989.
29. Tarquin, Anthony J. and Rittmann, Douglas D., "Cost Savings Through Chemical Addition Sequencing," Public Works, V121, No. 7, June 1990.
30. Tarquin, Anthony J. and Rittmann, Douglas, "Can Chlorine Dioxide and Activated Carbon Control THM?," Water Engineering and Management, V139, No.6, June 1992
31. Tarquin, Anthony J., "Performance Evaluation of Rock and Intermittent Sand Filters for Texas On-Site Wastewater Treatment," Proceedings, On-Site Wastewater Treatment and Research Conference, Austin, TX, August 1992.
32. Tarquin, Anthony J., and Chan, Peter, "Treat Wastewater On Site," Pollution Engineering, V24, No. 17, October 1992.
33. Tarquin, Anthony, Bustillos, Roman, and Rutherford, Keith, "Evaluation of a Cluster Wastewater Treatment System in an El Paso County Colonia," Proceedings, On-Site Wastewater Treatment and Research Council Annual Conference, Austin, TX, October 1992.
34. Tarquin, Anthony J., and Rittmann, Douglas, "Use of Chlorine Dioxide for Disinfection and Taste and Odor Control," Public Works, V124, No. 2, February 1993.
35. Tarquin, Anthony J., Sutton, John, Chan, Peter, and Vagwala, Srinivas, "Effectiveness of an Ultra-Low-Flush Toilet Program," Proceedings, Conserv 93, AWWA, Las Vegas, Nevada, December 1993.
36. Tarquin, Anthony J. and Rittmann, Douglas, "Lab and Plant Scale Evaluation of ClO₂ for THM Control," Proceedings, Water for Texas Conference, Austin, TX, January 1995.
37. Tarquin, Anthony J., Hansel, Glen, and Rittmann, Douglas, "Reduction of Chlorite Concentrations in Potable Water with Ferrous Chloride," Water Engineering and Management, V 142, No. 2, Feb. 1995.
38. Tarquin, Anthony and Rittmann, Douglas, "Lab And Pilot Scale Evaluations of ClO₂ for THM Control", Proceedings, Water for Texas Conference, Austin, TX, January 1995

39. Walton, J., Smith, R.W., Tarquin, A., et al, "Role of Carbonation in Long-Term Performance of Cementitious Wasteforms; Environmental Science and Technology, V 31, No. 8, 1997
- 40 Tarquin, Anthony J., Haan, Greg, and Rittmann, D., "Polymer Cost and Performance Evaluation" Water Engineering and Management V 145, No. 1, Jan 1998
- 41 Bin Shafique, Sazzad, Walton, J., Smith, R., Gutierrez, Neyda, Tarquin, A., "Influence of Carbonation on Leaching Behavior of Cementitious Wasteforms", J. Environmental Engineering, ASCE, May 1998
42. Wicker, R, Quintana, R., Tarquin, A., et al, "Evaluation Model Using Fundamentals of Engineering Examinations", J of Professional Issues in Engineering Education, ASCE, April 1999
43. Rittmann, Douglas and Tarquin, Anthony, "Impact of Mixing Chlorine and Chlorine Dioxide on Total Trihalomethane Formation: Part 1", Water Engineering and Management, V 149, No.8, August 2002
44. Rittmann, Douglas and Tarquin, Anthony, "Impact of Mixing Chlorine and Chlorine Dioxide on Total Trihalomethane Formation: Part 2", Water Engineering and Management, V 149, No.9, September 2002
45. Tarquin, Anthony, Rittmann, Douglas, and Pino, Rodolfo, "Bromate Control During Ozonation of High-Bromide Drinking Water", Proceedings, AWWA Water Quality Technology Conference, Seattle, WA, Nov 2002
46. Armstrong, J., Gurian, P., and Tarquin, A., "Public Perception Of Wastewater Reuse", Proceedings, AWWA Source Water Conference, Austin, TX 2004
47. Armstrong, J., Gurian, P., and Tarquin, A., Applying the Psychrometric Paradigm to Understanding Public Attitudes Towards Wastewater Reuse", Proceedings, 19th Annual Water Reuse Symposium, Phoenix, AZ, 2004
48. Tarquin, Anthony, Patwardhan, G., and Kolluri, B., "The Science of Concentrate Management", Proceedings, 49th Annual New Mexico Water Conference, Ruidoso, NM, September 2004
49. Tarquin, Anthony, "Strategies for Concentrating Silica-Saturated RO Concentrate", Proceedings, Bi-National Desalination Conference 2004 El Paso, El Paso, Texas, October 2004
50. Tarquin, Anthony and Balliew, John, "Volume Reduction of High-Silica RO Concentrate", Proceedings, Water Quality Conference and Exposition, AWWA, San Antonio, Texas, November 2004
51. Tarquin, Anthony, "Volume Reduction of Concentrate by Multiple Methods",

Proceedings, 2004 National Salinity Management and Desalination Summit
Concentrating on Solutions” Las Vegas, Nevada, December 2004

52. Tarquin, A, Rico, F, Zamarron, A, Rittmann, D, “Removal of THMs from Drinking Water Using an Induced Draft Stripping Tower”, Proceedings, Water Quality Conference and Exposition, AWWA, Quebec City, Quebec, November 2005
53. Ning, Robert, Tarquin, A., Trzcinski, M., Patwardhan, G., “Recovery Optimization of RO Concentrate from Desert Wells”, *Desalination*, 201, pp 315-322, 2006
54. Balliew, John, and Tarquin, A., “Pilot Testing of VSEP Technology for Volume Reduction of RO Concentrate”, 11th Annual Water Reuse Research Conference, El Paso, TX, June 4-5, 2007.
55. Tarquin, Anthony, Michael P. Fahy, and John E. Balliew, “Membrane Treatment of Rio Grande Water for Municipal Water Production During the Non-Irrigation Season”, ASCE-EWRI Proceedings Conference: World Environmental & Water Resources Congress 2009, Kansas City, MO, May 17-21, 2009
56. Ning, Robert, Tarquin, A. “Crystallization of Salts from Super-Concentrate Produced by Tandem RO Process”, Poster, AMTA 2009 Annual Conference, Austin, TX, July 13-16, 2009.
57. Tarquin, A. “Cost Effective Volume Reduction of RO Concentrate”, Proceedings Desalination Concentrate Management Session, AMTA 2009 Annual Conference, Austin, TX, July 13-16, 2009.
58. Ning, Robert, Tarquin, A., “Crystallization of Salts from Super-Concentrate Produced by Tandem RO Process”, *Desalination and Water Treatment*, 16 (2010) 238-242
59. Ning, Robert, Tarquin, A., Balliew, John, “Seawater RO Treatment of RO Concentrate to Extreme Silica Concentrations”, *Desalination and Water Treatment*, 22 (2010) 286-291
60. Acevedo, Carlos, Gardea-Torresdey, J.L., Tarquin, A., “Silica Removal from Brine Using Ion Exchange” Proceedings ASCE-EWRI World Environmental & Water Resources Congress 2010, Providence, RI, May 16-20, 2010
61. Tarquin, Anthony, Michael P. Fahy, and John E. Balliew, “Concentrate Volume Reduction Research in El Paso, TX”, Proceedings ASCE-EWRI World Environmental & Water Resources Congress 2010, Providence, RI, May 16-20, 2010.
62. Tarquin, Anthony, John Balliew, Ralph Padilla, and Mike Fahy, “Performance of High-Rejection RO Membrane for Trivalent Arsenic and Inorganic Ion Removal”, Proceedings American Membrane Technology Association Annual Meeting, Miami Beach, FL, July 18-21, 2011.
63. Tarquin, Anthony, John Balliew, and Ralph Padilla, “Arsenic Removal by Standard and

High-Rejection RO Membranes and Oxidation to As+5 Prior to RO”, Proceedings American Membrane Technology Association Annual Meeting, Glendale, Az, Feb 27 - Mar 4, 2012

64. W.S. Walker and A. Tarquin. (2012 Jan 26) Concentrate and permeate treatment processes for improving the sustainability of inland brackish water desalination, presented at the Multi-State Salinity Coalition Summit, Las Vegas, NV, Proceedings, Jan, 2012

65. Tandon, Vivek, et al, “Use of Mutated Micro-Organism to Produce Sustainable Mortar”, ACI Materials Journal, Sept, 2013

66. Bijoy, Halder, Tandon, V., Delgado, G, Tarquin, A, “Sustainable Utilization of RO By-Product Solids”, Proceedings, ASCE CI, Dallas, Tx, Sept 12-13, 2013

Bijoy, Krishna Halder, Tandon, V, Tarquin, A, and Ramana, V, “Influence of Coal Fly Ash on Mechanical Properties Mortar Consisting of Total Dissolved Solids”, ???

67. Tandon, Vivek, et al, “A Potential Biological Approach for Sustainable Disposal of Total Dissolved Solid of Brine in Civil Infrastructure”, submitted to Construction and Building Materials, Elsevier, Feb 2014

68. Milne, Nicholas, et al, “Chemistry of Silica Scale Mitigation in Desalination: A Review”, submitted to Water Research, Feb, 2014

B. Books

1. Engineering Economy: A Behavioral Approach, Tarquin, A.J. and Blank. L.T., published by McGraw-Hill, New York, 1st Edition, 1976; second Edition, 1983; third edition, 1989; fourth edition, 1998; fifth edition, 2002; sixth edition, 2005; seventh edition, 2012.
2. Engineers Reference Book and Source Guide. Engineering Manual prepared with seven other engineers, published in February 1976 by Kemar Corporation.
3. Chapter entitled "Capital Investment Decisions," in Manufacturing Cost Engineering Handbook, edited by Eric Malstrom, Marcel-Dekker, 1984.
4. Introduction to Engineering, Craver, L., Schroder, D., and Tarquin, A., Holt, Reinhart, and Winston, 1987.
5. Career Opportunities in Engineering and Technology, Craver, L., Schroder, D., and Tarquin, A., Holt, Reinhart and Winston, 1988.

6. Mechanisms of Chemical Degradation of Cement-Based Systems, Role of Carbonation in Long-Term Performance of Cementitious Wasteforms; Walton, J., Smith, R., Tarquin, A., et al; edited by K.L. Scrivener and J.F. Young; Published by E&FN Spon. 2-6 Boundary Row, London, 1997
7. Basics of Engineering Economy, Leland Blank and Anthony Tarquin, McGraw-Hill, New York, first edition, 2008, 2nd ed. 2013
8. The GHD Book of Water Treatment, 2nd ed, external contributor, Published by GHD, Inc., ISBN 978-0-646-58507-9, Sept 2012

C. Reports

1. Zaltzman, R. and Tarquin, A., "Annotated Bibliography on Cellulose Decomposition," Superintendent of Documents, U.S. Government Printing Office, June 1969.
2. Tarquin, A., "Treatment of High Strength Meatpacking Plant Wastewater by Land Application," EPA-600/2-76-302, U.S.E.P.A., December 1976.
3. Tarquin, A., Richards, M., and Rozendal, D., Preliminary Feasibility Study for the Location of an Industrial Park Near Van Horn, Texas" prepared for the West Texas Council of Governments, January 1979.
4. Thirty (30) quarterly reports to Monsanto Textiles and State of Alabama regarding evaluation of toxic sludge disposal site, 1976-1983.
5. Tarquin, A., and Dowdy, "Optimization of Pumping in Water Distribution," City of El Paso, final report, Dec. 1984.
6. Tarquin, Anthony, "Effectiveness of Ferric Chloride Polymer and Chlorine Dioxide in Water Treatment", City of El Paso, Final Report, Oct. 1989.
7. Tarquin, Anthony, "Effectiveness of Chlorine Dioxide and Activated Carbon for THM Control", City of El Paso, October 1990.
8. Tarquin, A. and Schroder, D., "Effect of Transient Voltage Surge Suppressors on Operational Efficiencies of Induction Motors", City of El Paso, February 1991.
9. Tarquin, Anthony, "Evaluation of the Solid Waste Recycling Center at Fort Bliss, Texas", U.S. Army Air Defense Artillery Center and Fort Bliss, Final Report, July 1991.
10. Tarquin, Anthony, "Survey of Lead and Copper in El Paso's Drinking Water", City of El Paso, Final Report, September 1991.
11. Tarquin, Anthony, "Wastewater Pretreatment at Fort Bliss, Texas", U.S. Army Air Defense Artillery Center and Fort Bliss, Final Report, September 1991.

12. Tarquin, Anthony, "Evaluation of a Low Cost On-Site Wastewater Treatment System", San Elizario School District, Final Report, October 1991.
13. Tarquin, Anthony, "Determination of Disinfectant Contact Times in City of El Paso's Water Treatment Plants", Final Report, El Paso Water Utilities, January 1992.
14. Tarquin, Anthony, "Use of Ferrous Chloride for Oxychlorine Residual Control During ClO_2 Treatment of Drinking Water", Final Report, Camp, Dresser, and McKee and City of El Paso, Jan. 1994.
15. Tarquin, Anthony, "Evaluation of Wetlands Wastewater Treatment Unit at the Moon City . Health Center", Prepared for Mr Godwin Ubany, City of El Paso, Oct, 1995
16. Tarquin, A., "Residential Water Use and Assessment", Included in "Creation of an Economic Development Strategy for Sustainable Use of Surface Water", Economic Development Agency, March 1997
17. Tarquin, A., "Bromate Control During Ozonation of High-Bromide Drinking Water", El Paso Water Utilities, August 2001
18. Tarquin, A., "Characterization and Quantification of Water losses at the Canal Street Water Treatment Plants", El Paso Water Utilities, Nov 2001
19. Tarquin, A., "Water Loss Reduction in Sludge Wasting and Filter Cleaning Operations", El Paso Water Utilities, Oct 2002
20. Tarquin, A. "Effectiveness of GAC for THM, TOC, and Taste and Odor Control vs Time", El Paso Water Utilities, Dec 2002
21. Tarquin, A., "Volume Reduction of High-Silica RO Concentrate Using Membranes and Lime Treatment", U.S. Department of the Interior, Bureau of Reclamation, DWPR Report No. 108, Feb 2005
22. Tarquin, A., "Removal of THMs from Drinking Water Using an Induced Draft Stripping Column", El Paso Water Utilities, January 2005
23. Tarquin, A. "Cost Effective Volume Reduction of Silica-Saturated RO Concentrate", U.S. Department of the Interior, Bureau of Reclamation, DWPR Report No. 125, Mar 2006
24. Tarquin, A. "Laboratory Evaluation of Chemical Changes in RO Concentrate During Deep-Well Injection" El Paso Water Utilities, August 2006
25. Tarquin, A., "THM Removal via Air-Stripping in a Forced-Draft Packed Tower"; El Paso Water Utilities, February 2007
26. Tarquin, A. "High Tech Methods to Reduce Concentrate Volume Prior to Disposal", Texas Water Development Board, Final report, Contract #0704830769, Mar 2010.

27. Tarquin, A, "Arsenic (As-III) Removal by Standard & High-Rejection RO Membranes, and by Chlorine Oxidation Ahead of Standard RO Membranes", El Paso Water Utilities, February 2011
28. Tarquin, Anthony, "Continuous Flow Seawater RO System for Recovery of Silica-Saturated RO Concentrate", Final Report, Texas Water Development Board, July 2011
29. Tarquin, Anthony, "High Recovery of RO Concentrate Using a Batch-Treatment Seawater RO System" U.S. Department of the Interior, Bureau of Reclamation, DWPR Report No. 159, Mar, 2012
30. Tarquin, Anthony, "Continuous Flow Seawater RO System for Recovery of Silica-Saturated RO Concentrate", Final Report, WateReuse Foundation, May 2012
31. Tarquin, Anthony, "Water and Energy Consumption for Residential Cooling by Evaporative Versus Refrigerated Air Conditioning Systems", Final Report, El Paso Water utilities, July, 2012
32. Tarquin, Anthony, "Performance Evaluation of the SolarBee THM Removal System", Final Report, El Paso Water utilities, September, 2013

D. Other

1. Presiding Officer at Technical Session "Innovative Technology and Equipment", TWPCA Conference, El Paso, May 1980
2. Guest Editorial, El Paso Times, May 11, 2003
3. Guest on "Water Matters", El Paso Water Utilities, July, 2003
4. Moderator for one of five sessions at desalination conference "Concentrating on Concentrate", El Paso, TX, March 15-17, 2006
5. Moderator, Concentrate Management Session, American Water Works Association Membrane Technology Conference, Long Beach, CA, March 21-31, 2011.

Theses and Dissertations Directed

1. Serafim, Alexandre, "Aerobic Digestion of Sewage Solids with Additions of High Concentrations of Paper," December 1971.
2. Hoskins, Thomas, "Nutrient Removal by Additions of Waste Paper to Activated Sludge," August 1972.
3. Woo, Enrique, "Biological Denitrification of Wastewater by Addition of Paper," August 1972.
4. Cedillos, Reynaldo, "Design Criteria for a Low Pressure Spray Irrigation System," August 1974.
5. Payan, Corinne, "Chemical Treatment of Meat-Packing Plant Wastewater from Unit Operations," May 1975.
6. Vandertulip, Donald, "Meat Packinghouse Wastewater: Characterization by Source," May 1975.
7. Richards, Michael, "Determination of the Rate and Products of Grease Degradation in a Soil Treatment System," December 1976.
8. Alvarado, Ruben, "Removal of Grease from Meatpacking Plant Wastewater Using a Centrifugal Separator," May 1977.
9. Bautista, Humberto, "Evaluation of an Overland Flow System for High Strength Meat Packinghouse Wastewaters," May 1977.
10. Martinez, Hector, "RBC Treatment of Refinery Wastewater," December 1979.
11. Westfall, Brian, "Evaluation of an Activated Sludge Package Plant," December 1981.
12. Zifan, Elizabeth, "Evaluation of Aeration in Water Treatment," December 1981.
13. Speetzen, Wayne, "Preliminary Assessment of Wastewater Reuse for Water Conservation at Fort Bliss, Texas," May 1982.
14. El-Rayes, Hamdy, "Destruction, Detoxification, and Recovery of Cyanide from Cyanide Wastes," Feb. 1984.
15. Tsimis, Diana, "Cost Minimization of Coagulation in Water Treatment," May 1984.
16. Hsu, Martin, "Evaluation of a Filter Conditioner in Water Treatment," March 1985.
17. Rittmann, Doug, "Effectiveness of Chlorine Dioxide Treatment of Rio Grande River Water in El Paso, Texas," May 1990.

18. Chan, Peter, "Evaluation of an Anaerobic Filter, Intermittent Sand Filter for Treating School Wastewater," December 1990.
19. Irani, Spenta, "Performance Evaluation of an Anaerobic Filter Intermittent Sand Filter System for Treating Domestic Wastewater," May 1992.
20. Pappu, Sunder, "Evaluation of a Modified Overland Flow System for Treating Wastewater," May 1992.
21. Avalakki, Sudhir, "Survey of Lead and Copper in El Paso's Drinking Water," July 1992
22. Pyapali, Sudhir, "Effects of Oil and Grease on the Activated Sludge Process," May 1993.
23. Hansel, Glenn, "Reduction of Chlorite in Potable Water by Ferrous Chloride," May 1993.
24. Cheng, Jianlin, "Performance Measurement of a Modified Overland Flow System for Treating Domestic Wastewater," December 1993.
25. Farran, Yusuf, "Rio Grande/Rio Bravo Toxicity Study", December 1993
26. Gajarla, Hanmandlu, "Development of a Prediction Model for Organic Removal by Intermittent Sand Filtration," January 1994.
27. Vagwala, Srinivasa, "Development of a Prediction Model for Organic Removal by Anaerobic Filters," May 1994.
28. Vasikarla, Latha Sree, "Lead Concentration in Tap Water Drawn From Brass and Chrome Fixtures", July 1994
29. Bustillos, Roman, "Wastewater Collection, Treatment, and Disposal Plan for Colonia De Las Azaleas Utilizing Constructed Wetlands," December 1994.
30. Edgar, Cindy, "Assessment of Aquatic Toxicity from Photoprocessing Waste," May 1995.
31. Rutherford, Keith, "Low Cost Aeration for On-Site Wastewater Treatment Systems," May 1995.
32. Veerapaneni, Sreedhar, " Preliminary Investigation of an Irrigation Ditch in the Lower Valley, El Paso County, July 1995.
33. Boyd, Robert, "Evaluation of Chlorine Dioxide for Trihalomethane Control," July 1995.
34. Rosas, Ignacio, "Determination of GAC Life for Taste and Odor Control at the City of El Paso Water Treatment Plants," May 1996.

35. Haan, Greg, "Synthetic Organic Polyelectrolyte Coagulant Aids: Performance and Cost Analysis", May 1997
36. Gonzalez, Troy, "Cost Savings Through Water Treatment Plant Improvements", December 1997
37. Rittmann, Douglas, "Impact of Cl_2 in the Generation of ClO_2 on DBPs in Drinking Water, PhD Dissertation, July 1999
38. Bouche, Laura, "Quantity and Quality of Evaporative Cooler Bleed-Off Water" December, 2000
39. Pino, Rodolfo, "Bromate Control During Ozonation of High-Bromide Drinking Water", December 2001
40. Lair, Sanaan, "A Study of Geosmin Removal: Selection of the Best Powdered Activated Carbon and Effect of Ozonation, July 2001
41. Dominguez, Carlos, "THM Control and Geosmin Removal as a Function of GAC Life in Water Treatment, December 2001
42. Rico, Fernando, "Water Loss Reduction in Sludge Wasting and Filter Backwashing Operations in El Paso, Texas", December 2002
43. Montanez, Yanet, "Removal of Silica From Brine Using Lime Precipitation", August 2003
44. Kolluri, Bhaskar, "Silica Reduction Via Lime Treatment of Brine Concentrates", December 2003
45. Zamarron, Aide, "Trihalomethane Reduction Through Air Stripping", May 2005
46. Riley, Robert, "Treatment of Non-irrigation Water at the Canal Street Water Treatment Plant, June 2005
47. Patwardhan, Gautam, "Silica Reduction in Brine Concentrates Using Lime", July 2005
48. Rodriguez, Ruben, "Low Cost Trihalomethane Reduction thru Air Stripping", April, 2007.
49. Acevedo, Carlos, "Silica Removal from Brine Using Ion Exchange" December, 2009
50. Delgado, Guillermo, "Treatment of RO Concentrate Using VSEP Technology", December, 2009
51. Moss, Robert, "Evaluation of A Cash Award program for Water Conservation",

December, 2012

52. Delgado, Guillermo, "An Evaluation of the CERRO Process as an Efficient RO Concentrate Management System", PhD dissertation, Dec, 2013
53. Patwardhan, Gautam, April 2014

**Service Activities
(Since 1980)**

College of Engineering

Dean's Selection Committee, College of Engr., 1982, Member
Ad Hoc Committee on Service and Core Courses, College of Engr. 1983, Member
Selection Committee for Chairman of Civil Engr. Dept., 1983, Chairman
Industrial Advisory Board, College of Engr., 1983 - 1989
Ad Hoc Committee on Summer Pre-Engineering Programs, College of Engr., 1983, Member
Ad Hoc Committee on Research, College of Engr., 1983, Chairman
Extramural Affairs and Research Council, College of Engineering, 1984 - 1989, Chairman
Assistant Dean, College of Engineering, 1976-79 and 1987-1989
CE Dept Curriculum Committee, 1985-1989, Chairman
CE Dept Goals Committee, 1989, Chairman
Interim Chairman, CE Dept, 1989-90
CE Department Scholarship Committee, 1991-present
Mentor for Students, Summer Bridge Program, 1994, 1995, 1996

University

Presidential Advisory Committee, 1979-1982, Member
Academic Space Committee, University of Texas at El Paso, 1981, Member
Library Building Committee, 1981, Member
Environmental Science Ph.D Committee, 1982, Member
Exit Exam Committee, University of Texas at El Paso, 1982, Member
Purpose and Goals Committee, University of Texas at El Paso, 1982, Member
Assistant Deans Committee, 1987-89, Member
University Curriculum Committee, 1987-89, Member
Search Committee for Chairman, Dept. of Mathematics, 1990, Member
Search Committee for Chairman, Dept. of Biology, 1992, Member
Search Committee for Dean, College of Science, 1994, Member
Search Committee for Director of Environmental Science and Engineering Program Committee, 1994, Member
Distinguished Achievement Awards Committee, 1994, Member
Hearing Officer, Student Disciplinary Cases, 1997- 2004
Outstanding Dissertation Committee, March, 2004

Outside University

Presiding Officer at Technical Session "Innovative Technology and Equipment", Texas Water Pollution Control Association Conference, May 1980.
Selection Committee for City Engineer, City of El Paso, 1982, Member
Mothers Against Drunk Driving, 1980-1989, Vice President
Review of Chemistry for Environmental Engineers, McGraw-Hill, Oct. 1984
Ysleta Science Fair, 1988, Judge
Sun Country Science Fair, 1988, Judge
UTEP Science Days, 1988, Judge
Referee, International Association on Water Pollution Research and Control, 1989, 1990, and 1995 Conferences
Texas Water Pollution Control Association Student Activities Committee, 1986-present, Member
Selection Committee for City of El Paso, Traffic Engineer III, June 1990, Member
Technical Advisory Committee, City of El Paso, Nov 1989-Dec 1990, Member
New Mexico/Texas Water Commission, June 1991-Aug 2005
Review of papers for The Engineering Economist, April 1991- Mar 1992
Review of papers for ASCE, Environmental Engineering Div., Aug 1996, Jan 1997, Dec 1997, Feb 2000, Aug 2000, Dec 2002, and March 2003
TNRCC Rule Revision Subcommittee, May 1995-1997.
Jonathon Rogers Water Treatment Plant Expansion Steering Committee, June- Sept, 1997
Paso Del Norte Health Foundation Committee, June-Aug, 1997
Review of paper for ASME, J of Solar Energy Engineering, May, 1998
El Paso City-County Environmental Health District Board of Directors, April 1999 – May 2000
Water Reuse Foundation Concentrate Disposal Workshop, Invited Participant, Denver, CO, March 2003
Water Reuse Foundation Concentrate Disposal Workshop, Invited Participant, San Diego, CA - October 2005
Socioeconomic Impacts of Rio Grande Salinity, Moderator, Rio Grande Project Salinity Management Workshop, El Paso, TX – May 21-22, 2007
Review of Paper for Journal of Hazardous Materials, Jan 2010
Review of Paper for Water Research Journal, Jan 2010
Review of Paper for Desalination and Water Treatment, Dec 2012
Review of Paper for Desalination and Water Treatment, Jan 2014

Consulting Activities

Served as a paid consultant to the following companies:

Parkhill, Smith & Cooper Consulting Engineers
Forrest and Cotton Consulting Engineers
Anderson, Bradley, Dyess, and Woods Consulting Engineers
Monsanto Textiles

West Texas Council of Governments
Mountain Pass Cannery
Blount's Packing
Petro Truck Stop
Horizon City Water Authority
Amoco Chemical Corporation
Gaslight Square Mobile Home Park
Union 76 Auto/Truck Stop
Desert Oasis Mobile Home Park
El Paso Water Utilities

Courses Taught

Undergraduate Courses:

Engineering Economy
Water Treatment
Wastewater Treatment
Water and Wastewater Analysis Lab
Air Pollution
Environmental Engineering
Introduction to Civil Engineering

Graduate Courses:

Analysis of Water and Wastes
Bioengineering Processes
Sewage Treatment Plant Design
Advanced Waste Treatment
Air Pollution Control Engineering
On-Site Wastewater Treatment
Unit Operations and Processes I
Unit Operations and Processes II

Summary of Research Interests

Dr. Tarquin's Research interests lie in two major areas:

(1) Environmental Engineering, and (2) Teaching Effectiveness:

In Environmental Engineering, Dr. Tarquin's research is in water and wastewater treatment.

Completed projects have related to industrial wastewater treatment, domestic wastewater treatment, water treatment plant optimization, and a small waste flows. The most recent

projects pertain to water treatment operations and desalting projects, particularly the economic

aspects of alternative treatment processes for DBP control and concentrate management in desalting systems. Other current projects concern water resources in arid environments, including recycling, reuse, conservation, and their associated economic considerations.

With respect to teaching effectiveness, Dr. Tarquin has experimented with alternative teaching techniques for many years. Past projects have included self-paced instruction, videotaped courses, and time-compressed videotaped lectures. Current projects involve web-based self-paced courses.