

CURRICULUM VITAE

Charles M. McGinley, P.E.
Environmental Consultant and Technical Director
McGinley Associates, P.A. and St.Croix Sensory, Inc.

St.Croix Sensory, Inc.
1150 Stillwater Blvd N.
Stillwater, Minnesota 55082 USA
Phone: 651.439.0177
Fax: 651.439.1065
E-Mail: cmcginley@fivesenses.com

PERSONAL DATA:

Birth Date: 12 November 1945
Birth Place: St. Paul, Minnesota
Citizenship: U.S. Citizen

CERTIFICATION AND LICENSURE:

1975 Registered Professional Engineer in Minnesota
Registration No. 11871

EDUCATION:

1978 Masters Degree in Business Administration, (MBA)
University of St. Thomas, St. Paul, Minnesota

1970 Bachelor of Chemical Engineering (BChE)
University of Minnesota, Minneapolis, Minnesota

1966 U.S. Army, Fort Leonard Wood, Missouri

MEMBERSHIPS:

1981-Present Water Environment Federation
1974-Present Air & Waste Management Association

INDUSTRY LEADERSHIP:

Program Co-Chair of the Water Environment Federation International Specialty Conference on Odors and VOC Emissions. Cincinnati, OH: April 16-19, 2000.

Participant & Contributing Author, "Section 7 -Odor Monitoring & Standards", "Operations & Design to Control Ultimate Recycling & Disposal Odors of Biosolids Workshop", EPA National Biosolids Partnership, November 1999.

Technical Program Co-Chair, Air & Waste Management Association International Specialty Conference on Odors: Indoor and Environmental Air. Bloomington, MN: September 13-15, 1995.

POSITIONS:

- 1990-Present Technical Director
St. Croix Sensory, Inc.
Odor, Air, Water, Food, Material, and Product Evaluations
- 1980-Present Principal Engineer, Consultant
McGinley Associates, P.A.
Environmental Health Engineering
- 1977-80 Manager of Engineering
Environmental Systems Division, Geo. A. Hormel & Co.
R&D of Air and Water Pollution Control Systems
- 1974-77 Senior Enforcement Engineer
Minnesota Pollution Control Agency
Industrial and Municipal Facilities
- 1967-74 Senior Chemical Engineer
3M Company, Central Research & New Business Ventures
- 1974-77 Minnesota National Guard, Stillwater, Minnesota
1966-72 US Army Reserve, Fort Snelling, Minnesota

VISITING POSITIONS:

- 1999 Lecturer for CONAMA, National Commission for the Environment,
Environmental Regulation Department, Republic of Chile.
- 1991-1993 Instructor and Investigating Engineer for the Sydney Water Board “Clean
Waterways Program”
- 1991 Instructor, “Odor Control for Designing Wastewater Pumping Stations”,
University of Wisconsin – Madison, College of Engineering, April 1991.

PUBLICATIONS:

- McGinley, Charles M., and Michael A. McGinley, “Precision & Accuracy of Odor Control System Performance Tests” Proceedings of the Water Environment Federation / Air & Waste Management Association Specialty Conference: *Odors and Air Emissions 2012*: Louisville, KY: 14-18 April 2012.
- McGinley, Michael A., and Charles M. McGinley, “Odor Assessor Performance to Reference and Non-Reference Odorants.” Proceedings of the Water Environment Federation / Air & Waste Management Association Specialty Conference: *Odors and Air Emissions 2010*: Charlotte, NC: 21-24 March 2010.
- McGinley, Michael A., and Charles M. McGinley, “Odor Threshold Emission Factors for Common WWTP Processes.” Proceedings of the Water Environment Federation / Air & Waste Management Association Specialty Conference: *Odors and Air Emissions 2008*: Phoenix, AZ: 6-9 April 2008.

McGinley, Michael A., and Charles M. McGinley, "Precision of Olfactometry and Odor Testing Results." Proceedings of the Water Environment Federation / Air & Waste Management Association Specialty Conference: *Odors and Air Emissions 2006*: Hartford, CT: 9-12 April 2006.

McGinley, Charles M., and Michael A. McGinley, "An Odor Index Scale for Policy and Decision Making Using Ambient and Source Odor Concentrations." Proceedings of the Water Environment Federation / Air & Waste Management Association Specialty Conference: *Odors and Air Emissions 2006*: Hartford, CT: 9-12 April 2006.

Mann, Jeff, and Charles M. McGinley, "Correction of Olfactometry Results for Hot Odour Samples." Air and Waste Management Association 98th Annual Meeting and Exhibition. Minneapolis, MN: 21-24 June 2005.

McGinley, Michael A., and Charles M. McGinley, "Measuring Composting Odors for Decision Making." Proceedings of the U.S. Composting Council 2005 Annual Conference: San Antonio, TX: 24-26 January 2005.

McGinley, Michael A., and Charles M. McGinley, "Developing a Credible Odor Monitoring Program." Proceedings of the American Society of Agricultural Engineers (ASAE) 2004 Annual Conference: Ottawa, ON, Canada: 1-4 August 2004 (Also presented at VDI International Odour Conference: Environmental Odour Management: Köln, Germany: 17-19 November 2004).

McGinley, Michael A., and Charles M. McGinley, "Comparison of Field Olfactometers in a Controlled Chamber using Hydrogen Sulfide as the Test Odorant." Proceedings of the Water Environment Federation Specialty Conference: *Odors and Air Emissions 2004*: Bellevue, WA: 18-21 April 2004. (Also published in *Water Sci. Tech.* 2004, 50(4): pp 75-82.)

Lay, Alice M., and Charles M. McGinley, "A Nasal Chemosensory Performance Test for Odor Inspectors." Proceedings of the Water Environment Federation Specialty Conference: *Odors and Air Emissions 2004*: Bellevue, WA: 18-21 April 2004.

McGinley, Charles M. "Standardized Odor Measurement Practices for Air Quality Testing." Proceedings of the Air and Waste Management Association Symposium on Air Quality Measurement Methods and Technology - 2002. San Francisco, CA: 13-15 November 2002.

McGinley, Charles M., and Michael A. McGinley, "Impact of the New European Odor Testing Standard on Wastewater Treatment Facilities." Water Environment Federation 74th Annual Conference. Atlanta, GA: 13-17 October 2002.

McGinley, Charles M., and Michael A. McGinley, "Odor Testing Biosolids for Decisions Making." Proceedings of the Water Environment Federation 16th Annual Residuals and Biosolids Management Conference. Austin, TX: 3-6 March 2002.

McGinley, Michael A. and Charles M. McGinley, "The New European Olfactometry Standard: Implementation, Experience, and Perspectives." Air and Waste Management Association 94th Annual Meeting and Exhibition. Orlando, FL: 25-28 June 2001.

McGinley, Charles M. "Enforceable Permit Odor Limits." The Air and Waste Management Association Environmental Permitting Symposium II, Chicago, IL: 14-16 November 2000.

McGinley, Charles M., and Michael A. McGinley, "Odor Intensity Scales for Enforcement, Monitoring, and Testing." Proceedings of the Air & Waste Management Association 93rd Annual Meeting and Exhibition. Salt Lake City, UT: 19-21 June 2000.

McGinley, Charles M., and Michael A. McGinley, "Field Odor Monitoring and Enforcement." The 22nd Annual Hawaii Water Environment Association Conference. Honolulu, HI: 6-7 June 2000.

McGinley, Charles M., Michael A. McGinley, and Donna L. McGinley, "'Odor Basics' – Understanding Odor Testing." The 22nd Annual Hawaii Water Environment Association Conference. Honolulu, HI: 6-7 June 2000.

McGinley, Charles M., Thomas D. Mahin, and Richard J. Pope. "Elements of Successful Odor/Odour Laws." Proceedings of the Water Environmental Federation Specialty Conference: *Odors and VOC Emissions 2000*. Cincinnati, OH: 16-18 April 2000.

McGinley, Michael A. and Charles M. McGinley, "Olfactomatics: Applied Mathematics of Odor Testing." Proceedings of the Water Environmental Federation Specialty Conference: *Odors and VOC Emissions 2000*. Cincinnati, OH: 16-18 April 2000.

McGinley, Charles M., Richard Nicolai and Lisa Wolfert. "Olfactometry Flow Rate Criteria - A Multiple Laboratory Flow Rate Study, Part II." Proceedings of the Water Environmental Federation Specialty Conference: *Odors and VOC Emissions 2000*. Cincinnati, OH: 16-18 April 2000.

McGinley, Michael A. and Charles M. McGinley, "The 'Gray Line' Between Odor Nuisance and Health Effects." Air and Waste Management Association 92nd Annual Meeting and Exhibition. St. Louis, MO: 20-24 June 1999.

McGinley, Charles M., and Michael A. McGinley, "Odor Evaluation Fundamentals and Applications for Indoor Air Quality Research." The First NSF International Conference on Indoor Air Health. Denver, CO: 3-5 May 1999.

McGinley, Charles M., and Michael A. McGinley, "Odor Quantification Methods & Practices at MSW Landfills." Proceedings of the Air & Waste Management Association 91st Annual Meeting and Exhibition. San Diego, California: 14 – 18 June 1998.

Nicolai, Richard E., Larry D. Jacobson, David R. Schmidt, and Charles M. McGinley, "Livestock Odor Measurement using a Venturi Olfactometer and Odor Sampling using Cloth Swatches." EurAgEng International Symposium: *Ammonia and Odour Control from Animal Production Facilities*. Vinkeloord, The Netherlands: 6-10 October 1997. pp.193-196.

McGinley, Charles M., and Michael A. McGinley, "Olfactometry Flow Rate Criteria - A Multiple Laboratory Study, Part I." Water Environment Federation Specialty Conference: *Control of Emissions of Odors and Volatile Organic Compounds*. Houston, TX: 20-23 April 1997. pp. 7.9 - 7.16.

McGinley, Charles M., Donna L. McGinley, Kelly J. McGinley, "'Odor School' - Curriculum Development for Training Odor Investigators." Air and Waste Management Association International Specialty Conference: *Odors and Environmental Air*. Bloomington, MN: 13-15 September 1995. pp. 121 - 127.

Bowker, Robert P.G., Charles M. McGinley, and Neil A. Webster, "Estimating Odor Emission Rates from Wastewater Treatment Plants." Water Environment Federation Specialty Conference: *Odors and Volatile Organic Compound Emission Control for Municipal and Industrial Wastewater Treatment Facilities*. Jacksonville, FL: 24-27 April 1994. pp. 3.13 - 3.24.

McGinley, Charles M., and Jeff L. Mann, "International Standard Methods of Olfactometry and Associated Methods used by Major Sewerage Districts for the Assessment of Stationary and Ambient Odors." Water Environment Federation Specialty Conference: *Odors and Volatile Organic Compound Emission Control for Municipal and Industrial Wastewater Treatment Facilities*. Jacksonville, FL: 24-27 April 1994. pp. 3.1 - 3.12.

McGinley, Charles M., Michael Pierner, Gary Natzke, and Michael Wescott, "East Bay Shore Interceptor and Collection System Odor Control: Innovative and Universal Abatement Methods Applied." Water Environment Federation 66th Annual Conference. Anaheim, CA: 3-7 October 1993. pp. 99-107.

McGinley, Charles M. and Alistair Melville, "Development of a Data Base for the Odor Assessment of 36 STP's of the Sydney Water Board Using Standard Methods of Olfactometry." Water Environment Federation 66th Annual Conference. Anaheim, CA: 3-7 October 1993. pp.457-468.

Sereno, Douglas J., McGinley, Charles M., Harrison, David S., Haug, Roger T., "Dewatered Sludge Storage Emissions Control Using Multistage Wet Scrubbing." Water Environment Research Volume 65, Number 1, January/February 1993 pp. 66 – 72.

Van Durme, Gayle P., Brian F. McNamara, and Charles M. McGinley, "Characterization and Treatment of Composting Emissions at Hampton Roads Sanitation District." Water Pollution Control Federation 63rd Annual Conference. Washington, D.C.: October 1990.

SPECIAL PUBLICATIONS:

“A Review of the Science and Technology of Odor Measurement.” Prepared for the Air Quality Bureau of the Iowa Department of Natural Resources, Des Moines, IA. 5 December 2005.

“Chapter 2 – Odor Sampling & Measurement”, Control of Odors and Emissions from Wastewater Treatment Plants - Manual of Practice 25”, Water Environment Federation: Alexandria, VA. 2004

“A Detailed Assessment of the Science and Technology of Odor Measurement.” Prepared for the Minnesota Pollution Control Agency, St. Paul, MN, 30 June 2003.

“When is a Smell a Nuisance? (An overview of different approaches taken around the world in setting odor control regulations)”, Water Environment & Technology, Water Environment Federation, May, 2000.

Contributing Author to “Odor & VOC Handbook”, Chapter 8 - Emission Control Technology, Editor: Harold J. Rafson, McGraw-Hill: New York, NY. 1998

“Stalking a Moving Target (Quantification of industrial and wastewater odors is a challenging yet necessary first step in controlling this widespread problem)”, Environmental Protection, Stevens Publishing Corp, October 1998

“Sydney Water Board Tackles H₂S Odour Problems”, Waste Water International, June, 1993.

PATENTS:

U.S. Patent No. 6,018,984 “Odor Detecting Apparatus and Method”, 1 February 1999.

U.S. Patent No. 6,595,037 “Portable Odor Detection and Measuring Device”, 22 July 2003.

U.S. Patent No. 8,321,156B2 “Odor Inspection System”, 27 November 2012.

PROFESSIONAL BUSINESS PROFILE:

Charles M. McGinley, P.E. is the principal of McGinley Associates, P.A., specializing in odor issues. Charles is also the technical director of the odor-testing laboratory, St. Croix Sensory, Inc. Charles McGinley has over 40 years of experience related to air quality issues. Since 1980, McGinley Associates and St. Croix Sensory have provided engineering services, testing, technical assistance, and training (“ODOR SCHOOL”®.) to a broad range of municipal, government, and industrial concerns in the United States and internationally. St. Croix Sensory is an olfactometer supplier to municipal and university odor laboratories, including the universities of Alberta, Duke, Illinois, Iowa State, Manitoba, Minnesota, Pennsylvania State, Purdue and West Texas A&M. St. Croix Sensory is also the manufacturer of the Nasal Ranger field olfactometer used for measuring ambient odors. St. Croix Sensory also hosts a member subscription web based application (www.Odor-GIS.com), a data-base that stores and graphically displays the odor data on Google Maps and Google Earth.