## MARTHA A. O'BRIEN, President & Director of Field and Laboratory Services

##### EDUCATION

M.S. University of Massachusetts, Public Health ‑ Environmental Health

B.A. Saint Anselm College, Biology/ Pre-Med

#### SUMMARY OF EXPERIENCE

As Director of Field and Laboratory Services, Ms. O'Brien manages OS&E’s Sensory Laboratory and a variety of projects involving odor measurement, identification and control. Over the last 25+ years she has directed many project activities including field sampling programs, odor panel evaluations, and atmospheric dispersion modeling analyses for a wide variety of industries including wastewater treatment plants, composting facilities, landfills, resource recovery facilities, petroleum refineries, rendering operations, food processing plants, automotive assembly plants, foundries, and the chemical and pharmaceutical industries. She has prepared expert reports and provided expert testimony for litigation involving a variety of odor issues.

Ms. O’Brien has served several terms as Chairman of the Air & Waste Management Association’s (AWMA) EE-6 Odor Committee. She is currently chairman of the Odor Committees’ subcommittee on the International Standardization of Odor Sampling and Measurement Techniques and has authored the guideline document entitled Guidelines for Odor Sampling and Measurement by Dynamic Dilution Olfactometry.

**Landfill Experience:**

Ms. O’Brien has provided odor consulting services for many municipal waste landfills clients. Her most recent work has been performed at landfill sites in Dallas, Houston and Austin, Texas, Massachusetts, Connecticut and Maine. These landfill project activities have included ambient odor monitoring, odor emission sampling, determining the effectiveness of current odor control measures, recommending further odor control options, developing long-term odor monitoring programs, conducting odor training programs and providing expert testimony.

**WWTP Experience:**

Ms. O’Brien has directed and participated odor emission sampling programs at well over 100 municipal wastewater treatment plants nationwide and internationally including the following:

NEW YORK CITY’s: Newtown Creek, Hunt’s Point, and Coney Island Water Pollution Control Plants, LOS ANGELES’s Hyperion Wastewater Treatment Plant and Joint Water Pollution Control Plant, SAN FRANCISCO’s Southeast, Richmond-Sunset, North Point and Oceanside Water Pollution Control plants and BOSTON”s Deer Island and Nut Island WWTPs.

She was also project manager for OS&E’s participation in the Joint Emission Inventory Program (JEIP) which was conducted for compliance with the South Coast Air Quality Management District’s (SCAQMD) Rule 1179. This rule required all Publicly Owned Treatment Works (POTW’s) equal to or greater than 10 MGD to conduct an Emission Inventory Plan (EIP) to quantify emissions of volatile organic compounds and to characterize odorous emissions. The JEIP program resulted in OS&E developing the odor emission sampling protocols and conducting the odor analysis of over 500 odor emission samples collected from odor sources at 22 facilities that were impacted by the large-capacity POTW requirements of the Rule.

**Odor Training Instructor**

Ms. O’Brien has conducted odor training programs for numerous clients including private industry (including Chevron, Texaco, Exxon/Mobil, Shell, General Motors, etc.), municipal wastewater treatment plants (including Newtown Creek & Hunt’s Point WWTPs) and regulatory agencies (including Colorado Health Department of Public Health, Tri-County Health Department - Denver, City of Portland, Maine, Texas Natural Resources Conservation Commission, and Rhode Island Department of Environmental Management).

### Odor Threshold Determination Studies

As Director of OS&E’s Olfactory Laboratory Ms. O’Brien directs all sensory evaluation studies. Many studies have included determination of the detection, recognition and annoyance thresholds of pure compounds. Much of OS&E’s work in this area has been conducted as part of odor reduction efforts in the automotive industry. Odor threshold studies have been conducted for all of the major paint suppliers including DuPont, PPG, and BASF.

Before forming OS&E in 1987, Ms. O'Brien was a Scientist with TRC‑Environmental Consultants. In that position, Ms. O'Brien participated in odor investigations and odor abatement studies for most major industries throughout the U.S. and internationally. Ms. O'Brien's experience also includes various projects investigating the health and safety aspects of industrial settings and the indoor air quality of commercial and residential buildings.

Ms. O'Brien's previous experience includes a position with W. R. Grace & Co. which involved responsibilities for conducting industrial hygiene surveys sampling for dusts and vapors, noise monitoring, respirator training and fit testing, and safety inspections. She was also responsible for statistical handling of hygiene data and for recommending control strategies to abate workplace hazards.

#### PROFESSIONAL AFFILIATIONS

American Industrial Hygiene Association (AIHA)

Water Environment Federation (WEF)

Air & Waste Management Association (AWMA)

AWMA EE-6 Odor Committee (Chairman 2004-2006)

AWMA EE‑6 Odor Committee (Vice Chairman 2001-2004)

AWMA EE‑6 Odor Committee (Past Chairman 1996-1998)

AWMA EE‑6 Odor Committee Sub Committee on the

Standardization of Odor Measurement (Chairman)