

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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TENNANT COMPANY,

*Petitioner,*

v.

OXYGENATOR WATER TECHNOLOGIES, INC.,

*Patent Owner.*

Patent No. RE45,415

Reissue Date: March 17, 2015

Title: FLOW-THROUGH OXYGENATOR

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**DECLARATION OF DR. MARIO TREMBLAY**

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I, Dr. Mario Tremblay, make this declaration in connection with the proceeding identified above.

## **I. INTRODUCTION**

1. I have been retained by counsel for TENNANT COMPANY (“Tennant”) as a technical expert in connection with the proceeding identified above. I submit this declaration in support of Tennant’s Petition for Inter Partes Review (“Petition”) of United States Patent No. RE45,415 (“the ’415 patent”), Exhibit 1101.

## **II. QUALIFICATIONS**

2. My complete qualifications and professional experience are described in my curriculum vitae, a copy of which is attached as Exhibit 1104 to the Petition. Following is a brief summary of my relevant qualifications and professional experience:

3. I received a Bachelor of Science degree in 1983 from the University of Florida. I also received a Ph.D degree in Chemistry from the University of Florida in 1987. My Ph.D. emphasis was in analytical chemistry.

4. After obtaining my Ph.D., I worked at Procter & Gamble Company (“P&G”) for nearly 30 years from 1987-2017, developing products for the personal care industry, including skin care, cosmetics and household care products. From 1987 to 1990, I worked as a Principal Scientist Group Leader responsible for

leading analytical lab work for food and beverage research and product development. From 1990 to 2010, I worked as a Principal Scientist & Section Head responsible for leading analytical lab work for research and product development for various of P&G's global business units in the personal care industry. From 2010 to 2017, I worked a Research Fellow responsible for providing technical leadership to various product development initiatives for several of P&G's brands in the personal care and household care industries. After leaving Proctor & Gamble in 2017, I became a self-employed consultant working in personal care and household care industries.

5. Over the course of my career, I have developed a deep understanding of electrolysis cell design. For example, I designed various electrolysis cells for disinfection and water purification. I also developed more than a dozen different electrolysis cell designs to electrolyze water and/or water with different salts that resulted in the decontamination of liquids, hard surfaces, fabrics or air. Additionally, I designed electrolysis cells for the purpose of water purification of both drinking and bathing water in developing geographies. These systems were connected to water purification and/or wash machines and dishwashing machines. Further, I worked directly with the Pentagon, DARPA and other government agencies for three years in developing electrolysis cells for the purpose of forming chlorine dioxide for decontamination and biological countermeasures. Even

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