William D. Marscher is employed as CEO and Senior Consultant of the machinery consulting and independent rotating machinery company Mechanical Solutions, Inc. (MSI), performing expert witnessing and engineering work in the field of fluid systems and their rotating and reciprocating machinery, particularly large turbines, generators, compressors, and pumps. His typical work responsibilities include design, analysis, and testing of all types of plant machinery, as well as other types of fluid and mechanical systems. Mr. Marscher has background in various types of turbines (including hydraulic, steam, and gas), as well as various types of pumps, including centrifugal as well as positive displacement (e.g. reciprocating, gear, rotary, and screw).

Mr. Marscher received a B.S.M.E. from Cornell University in 1970, and a Master Eng. (Mech. Des.) in 1972, when he was a NASA Fellow and the lead graduate student for the original Mars Rover Design project. In 1976, he received an M.Sc. in Engineering Physics( Applied Mechanics) from Rensselaer Polytechnic Institute. He is a registered and licensed Professional Engineer, State of New Jersey Lic. No. 40626.

For 25 years, Mr. Marscher has been one of the U.S. voting representatives on the ISO (International Standards Organization) TC108 committee, and has been the US Coordinator concerning, among other issues, machinery dynamic behavior and vibration acceptance standards for centrifugal pumps and hydraulic turbine generators. He is past president of the Society of Tribologists & Lubrication Engineers (STLE), the primary technical society worldwide for the study and design of bearings, seals, wear, and erosion issues in machinery. For the past 45 years he has been a voting member of the ASTM Fatigue Standards Committee E9, as well as the ASTM Wear & Erosion Standards Committee G2. He is also the past Board of Directors Chairman for the Machinery Failure Prevention Technology Society (MFPT), and has been active in the Vibration Institute. Mr. Marscher is a 23 year member of the Texas A&M Turbine-Pump Users Symposium Advisory Committee (essentially the Board of Directors for the Symposium). For ASME, Mr. Marscher was Chair of the Predictive Maintenance committee, and was Organizing and Presiding Chair of the 1993 RoCon Rotating Machinery Conference and the 1995 Tribology Conference.

Mr. Marscher has written thirteen handbook chapters for various major engineering handbooks, which have focused on turbomachinery mechanical issues, including dynamics, and bearing and seal design. In previous employ, he was a senior engineer for the Bendix EFI Division (now a Honeywell division), a senior engineer for Pratt & Whitney Aircraft Engines, Director of Mechanical Engineering for Worthington HQ (pumps, compressors, and turbines), and for Dresser Worthington Division after their acquisition of Worthington. Later, he was VP of the independent turbomachinery developer Concepts NREC, from which 30 years ago he spun off Mechanical Solutions, Inc. as an independent turbomachinery technology company. He has since become a charter Standards Partner for the Hydraulic Institute (HI), the trade association for the pump industry, became Vice Chair of the vibration technical committee for HI, and was HI Standards Partner of the Year for 2018. He also won the 2019 Vibration Institute MFPT Frarey Award for Diagnostics Excellence.

His expert witnessing experience includes 27 cases over the course of his 50+ year career, for which he provided detailed engineering reports in support of the case. This legal support

| experience includes witnessing in front of tribunals four times, and testifying in Federal Court in four cases. He also has performed depositions 11 times. |
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