| UNITED STATES PATENT AND TRADEMARK OFFICE |
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| BEFORE THE PATENT TRIAL AND APPEAL BOARD  |
| VALVE CORPORATION Petitioner,             |
| v.  |
| IRONBURG INVENTIONS LTD., Patent Owner.   |
| Case IPR2017-00136 Patent 8,641,525       |

# DECLARATION OF DR. GLEN STEVICK IN SUPPORT OF THE PATENT OWNER RESPONSE



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I, Dr. Glen Stevick, declare and state as follows:

## I. <u>INTRODUCTION</u>

- 1. I have been retained by Ironburg Inventions Ltd. ("Ironburg" or "Petitioner") to consider the merits of Valve Corporation's ("Valve") unpatentability claims set forth in the above-captioned Petition with regard to United States Patent No. 8,641,525 ("the '525 patent"). I have personal knowledge of the facts and opinions stated in this Declaration, and am competent to testify thereto.
- 2. My company, Berkeley Engineering and Research, Inc. (BEAR) is being compensated at my standard consulting rate of \$450.00 per hour. My compensation is not contingent upon the substance of my declaration, any statements or opinions made, or the outcome of this matter.

## II. QUALIFICATIONS

3. I have over 25 years of experience in the general field of mechanical engineering and related engineering disciplines. My expertise includes years of experience in failure analysis and design of structures, consumer products, industrial equipment and medical devices, including specifically mechanical-electrical systems, aortic, hip and knee implants, turbines and reciprocating engines, automotive and aircraft components; structural



dynamics, electronic control systems, material behavior, heat transfer and structure/fluid interaction.

- 4. I received a Bachelor's of Science degree in Mechanical Engineering from Michigan Technological University in 1980 and a Master's of Science degree in Mechanical Engineering from the University of California, Berkeley in 1981.
- 5. I worked for Chevron Corporation during and after my time at Michigan Technological University and U.C. Berkeley while working toward my Master's degree.
- 6. In 1989, I returned to the University of California, Berkeley and started Berkeley Engineering And Research, Inc. ("BEAR"). BEAR provides mechanical and electrical engineering services ranging from project analysis and consultation to accident investigations and expert testimony.
- 7. I completed my Ph.D. in Mechanical Engineering from the University of California, Berkeley in 1993 majoring in material behavior and design, and minoring in structural analysis dynamics and controls (electronic controls).



- 8. I have more than 30 years of experience as a mechanical engineer, which began with nearly a decade working for Chevron as a project engineer and engineering mechanics specialist.
- 9. I am a registered Mechanical Engineer in California, Texas, Louisiana and Nevada and a member of the American Society of Mechanical Engineers.
- 10. My experience with Chevron related to many mechanical and electrical engineering methods and technologies used to control downstream process equipment, upstream oil and gas equipment, surface processing equipment and well-control equipment such as blowout preventers. I also provided advice and guidance concerning off-shore platforms in the Gulf of Mexico and the North Sea, including the avoidance of structural vibrations, the calculation of crack growth rates in platform structures, and the determination of remaining life for the platforms when operating in offshore environments. Assessment of these devices and structures involved detailed stress analysis and fracture mechanics calculations.
- 11. Since 1986, I have also worked as a consulting engineer through BEAR, and have provided engineering services related to various mechanical and electrical devices and systems.



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