UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMERICAN NATIONAL MANUFACTURING INC.,
Petitioner,

v.

SLEEP NUMBER CORPORATION
f/k/a SELECT COMFORT CORPORATION,
Patent Owner.

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Case No. IPR2019-00500
Patent No. 9,737,154 B2

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**DECLARATION OF GEORGE EDWARDS
IN SUPPORT OF PATENT OWNER'S RESPONSE**

TABLE OF CONTENTS

I, George Edwards, declare as follows:

1.   I am over the age of 21 years and am fully competent to make this Declaration. I make the following statements based on personal knowledge and, if called to testify to them, could and would do so.

2.   I have been retained on behalf of Sleep Number Corporation ("Sleep Number"). My fee is not contingent on the outcome of any matter or on any of the positions I have or will take in any matter. I have no financial interest in Sleep Number.

I.   Qualifications

3.   My qualifications as an expert in the fields of computer science, software engineering, embedded systems, and source code analysis are set forth in the paragraphs below and in my curriculum vitae, attached hereto as Appendix A.

4.   I graduated *summa cum laude* with a Bachelor of Science degree in computer science from Vanderbilt University in 2003. As an undergraduate, I was awarded the Vanderbilt School of Engineering Merit Scholarship. I spent one year in the MS program in computer science at Vanderbilt. During this time, I conducted research on application servers and code generators for distributed, real-time, and embedded systems, and I published my findings in several peer-reviewed conference papers and journal articles.

5.   I attended graduate school at the University of Southern California, where I was a USC Viterbi School of Engineering Dean's Doctoral Fellow and Annenberg Graduate Fellow. I received an MS in computer science in 2006 and a PhD in computer science in 2010 from USC. My MS research focused on distributed, real-time, and embedded systems. My PhD research focused on the analysis of distributed systems and their architecture, with an emphasis on mobile applications and embedded systems. My research was funded by several government agencies, such as the Department of Defense and the NSA, and large companies, such as Bosch and InfoSys. I presented my work at numerous conferences and in academic journals, industry magazines, and other publications. In 2008, I received the USC Computer Science Department's award for outstanding graduate student research.

6.   I am the founder of Quandary Peak Research, Inc., where I hold the titles of President and Computer Scientist. Quandary Peak Research is a software analysis company with twelve employees located in Los Angeles, Nashville, and Washington, D.C. Quandary Peak Research's software analysis services fall into three areas: (1) audits and compliance in highly regulated industries; (2) technical due diligence in mergers and acquisitions; and (3) litigation and intellectual property. In all three areas, Quandary Peak analyzes software and computer systems to answer questions about the development, structure, behavior, and quality of those systems.

7.   In my role as President, I manage the company's business affairs. In my role as Computer Scientist, I perform software analysis on behalf of clients. I have analyzed a broad variety of complex, real-world software systems, including many embedded software systems, mobile devices, and web and Internet applications. I have reverse-engineered the hardware and software designs of dozens of distributed systems. I have conducted many investigations of the design and implementation of these systems with respect to specific patent claims and other intellectual property considerations, such as copyright infringement and trade secret theft.

8.   I was formerly employed as a Lecturer of Computer Science at the University of Southern California. In that capacity, I taught Requirements Engineering (CSCI 568), a graduate-level software engineering class, and Data Structures and Algorithms (CSCI 102), an undergraduate-level software design and programming class.

9.   I also formerly worked as a research scientist and software engineer at Blue Cell Software LLC, Intelligent Systems Technology, Inc., IBM, and The Boeing Company. During my time with Blue Cell, I built a simulation-based software design and modeling environment. While at IBM, I conducted research on next-generation mobile architectures, such as large-scale mobile device provisioning

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