

## Andrew J. Thoresen

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### Brief Bio:



Mr. Thoresen is a forensic engineer with over 20 years of experience, serving as lead engineer in more than 3,500 fire and electrical injury cases, including acting as the lead engineering expert on high-profile investigations such as the Bonhomme Richard Fire, Ghostship Fire, and major wildland fires. He is a seasoned expert witness in both civil and criminal trials, recognized for his ability to simplify complex technical failures, document evidence with precision, and communicate findings clearly. During his experience, Mr. Thoresen has performed research and worked side-by-side with the CPSC, resulting in products that were recalled (see below for example). In addition to his engineering work, he frequently presents on forensic engineering, entrepreneurship, and photography, the latter enhancing his investigative documentation. Outside of his profession, he is a devoted husband and father of four, an avid coffee roaster, fitness advocate, and a dedicated Jiu-Jitsu practitioner, reflecting a well-rounded personal and professional life.

### Education:

**Marquette University, Milwaukee, WI: Bachelor of Science in Electrical and Electronic Engineering**

**FE Certification, 2003**

**PE Certification, 2007; Licensed in Arizona (License: 47603), California (License: E19615), New Mexico (License: 19441), Nevada License: 020220), Idaho (P-17140).**

### Work Experience:

**Principal Electrical Engineer; May 2004 to Present**

**Oracle Forensics Inc, Phoenix, AZ**

- ❖ Lead engineering expert on over 3000 fire/personal injury cases.
- ❖ Unique experience as a lead engineer in both criminal and civil cases. Testified over 50 times.
  - ❖ Criminal:
    - ❖ Lead engineering expert for Alameda County, 36-fatal, [Ghostship](#) Fire.
    - ❖ Lead Engineering Expert for DA.
    - ❖ Lead engineering defense expert for US Navy, [USS Bonhomme Richard](#)
    - ❖ Lead Engineering Expert for JAG (Defense)
    - ❖ Lead engineering expert for Maricopa County, [Michael Marin](#)
    - ❖ Lead Engineering Expert for DA
  - ❖ Civil:
    - ❖ Lead engineering expert on thousands of cases. Notable cases Examples:
      - ❖ [Glass Fire](#), Lead Engineering Expert Cakebreak Winery. Worked side-by-side with CALFIRE in determining winery was not responsible for fire.



- ❖ [Valley Fire, San Mateo Limo Fire, Juarez, Mexico Candy Explosion, LDS Church Fire \(ATF task Force\), Ranch Market, Mark Kia Dealership](#)
- ❖ 2016 Research regarding ill-functioning Radial-Style Thermal Cut Offs (TCOs) led to CPSC recalling 3 million fans in 2025.
  - ❖ [https://www.cpsc.gov/Recalls/2025/Electric-Motors-for-Gable-and-Roof-Mounted-Attic-Fans-Recalled-Due-to-Fire-Hazard-Distributed-by-Air-Vent?utm\\_campaign=&utm\\_content=&utm\\_medium=email&utm\\_source=govdelivery&utm\\_term=20250829](https://www.cpsc.gov/Recalls/2025/Electric-Motors-for-Gable-and-Roof-Mounted-Attic-Fans-Recalled-Due-to-Fire-Hazard-Distributed-by-Air-Vent?utm_campaign=&utm_content=&utm_medium=email&utm_source=govdelivery&utm_term=20250829)
- ❖ Professional Photographer.
  - ❖ Commonly retained on non-electrical cases given unique talent as a forensic photographer.
  - ❖ Routinely works for Charitable Foundations as a portrait photographer.
- ❖ Expert in loss site documentation, including: evidence preservation, evidence collection, scene reconstruction, 3D Reconstruction Renderings, CAD documentation, Microscopy, Radiography, Advanced Proprietary Imaging Techniques.
- ❖ Expert in electrical engineering, failure analysis, and electrocution.
- ❖ International experience.

#### **Examples of Classes taught by Mr. Thoresen in Forensic, Electrical Engineering:**

- ❖ Electrical Appliance Fires (Schaumburg, IL) 11/02, International Association of Electrical Inspectors (Tempe, AZ) 7/06, Electrical Engineering Analysis and Evidence Collection (Scottsdale, AZ) 4/10, Electrical Engineering - Beyond Subrogation (Tempe, AZ) 4/1, Arc Mapping/Live Burn Demonstration at The City of Phoenix Fire Department HQ (Phoenix, AZ) 11/12, Forensic Electrical Engineering – A whiff of Electrical (Phoenix, AZ) 11/12, Electrical Fire Case Summary for Phoenix Fire Department Investigation Department (Phoenix, AZ) 2/13, Arson 2 (Prescott, AZ) 4/2013, Electrical Forensic Engineering for Phoenix Fire 3/2016, Lithium Battery Failures 3/2016, Ventilation Fan Fires, 4/2017.

#### **Examples of Manufacturing Companies that Mr. Thoresen has consulted with as a Forensic, Electrical Engineer:**

- ❖ Broan-NuTone, Universal Metal Industries, Philips, Gibraltar Industries, Toyota, Norcold, Cooper Industries, Leviton Manufacturing, Electrolux, General Electric, Carrier Corp, Lennox, AT&T, Salt River Project.

#### **Examples of Insurance Companies that Mr. Thoresen has consulted with as a forensic electrical engineer:**

- ❖ State Farm, Allstate, Travelers, Liberty Mutual, American Family, Country Financial, Finpac, ANPAC, Farmers, Farm Bureau, USAA, Mercury, Kemper, Nationwide, Hartford, Philadelphia, Mercury

#### **Previous Work History:**

##### **Electrical Engineer/Manager of Southwest Territories, September 2002 to May 2004**

##### **Anderson Engineering of New Prague Inc, Phoenix, AZ**

- ❖ Oversaw all day-to-day operations of the Phoenix office
- ❖ Deciphered the failure modes associated with hundreds of different electrical/water devices
- ❖ Electrical-fire scene investigations
- ❖ Consulted on cases for attorneys and aided in the litigation processes



**Electrical Engineering Department, June 2001 to August 2001**

**Life Fitness, Franklin Park, IL**

- ❖ Completed different tasks in reliability engineering:
  - ❖ Keypad enviro-chamber testing
  - ❖ Electrical component stress analysis
- ❖ New component qualification testing:
  - ❖ MOSFET testing
  - ❖ NPN-BJT testing

**Electrical Engineering Department, May 2000 to May 2001**

**Johnson Controls Inc, Milwaukee, WI**

- ❖ Extensive testing with Metasys software, HVAC systems and thermostats
- ❖ Tested different types of thermostats
- ❖ Engaged in different capacitor, voltage ripple testing for power supplies.

**Publications:**

1. VENTILATION FAN FIRES: Overheated Windings and Malfunctioning Thermal Limit Switch Lead to Arcing, Fire Technology, 8/11/2014, Coauthor
2. Fire Investigator: Principles and Practice to NFPA 921 and 1033, Chapter 6 (Electrical), Fourth Edition, Coauthor, Editor

**Committees:**

1. UL 507 Standard Technical Panel (STP)

**Charitable Photography Endeavors:**

1. AZ Department of Child Safety
2. Make-A-Wish
3. Children's Heart Gallery
4. Ivey Ranch



## Record of Testimony:

<u>Date</u>	<u>Type</u>	<u>Case Name</u>	<u>Jurisdiction</u>
July 22, 2025	Depo	Zurich v Central Garden & Pet	Superior CA, San Diego CV: 00018041-CU-PL-CTL
June 26 <sup>th</sup> , 2025	Depo	Marshall Fire	Boulder County CO, 2022CV3019
May 12 <sup>th</sup> , 2025	Trial	State Farm v BMW	Superior Court CA, Contra Costa
March 4 <sup>th</sup> , 2025	Depo	State Farm v BMW	Superior Court CA, Contra Costa
August 1 <sup>st</sup> , 2024	Depo	San Pasqual v Broan	USDC, Case No. 3:23-cv-1901
July 25 <sup>th</sup> , 2024	Depo	Homesite v Norcold	District Court NV, No. 2:21-cv-02167-RFB-DJA
May 18 <sup>th</sup> , 2023	Depo	AMCO v Broan	USDC Case No. 2:22-CV-06247
August 16, 2022	Depo	State Farm V. BSH Home Appliances	LA (CA) Superior 19NWCV00777
February 3, 2022	Depo	State Farm V. Whirlpool	Central District of CA (Superior) 5:21-CV-004520JAK-SHK
December 15 <sup>th</sup> , 2021	Trial	US Navy Vs. Mays	US NAVY, Article 32 Trial
March 26, 2021	Depo	State Farm v KJ's Cooling	Superior Court (AZ) CV2019-011962
October 2 <sup>nd</sup> , 2020	ARB	Moscatel vs Swagton	San Bernardino Superior (CA) CIVDS1823524
August 27 <sup>th</sup> , 2020	ARB	Miramonte vs Colter Electric	Coconino Superior (AZ) CV 1-19-0001-9542
April 8, 2020	Depo	Miramonte vs Colter Electric	Coconino Superior (AZ) CV 1-19-0001-9542



<u>Date</u>	<u>Type</u>	<u>Case Name</u>	<u>Jurisdiction</u>
January 23, 2020	Depo	Allstate/SF v APS	Superior Court (AZ) CV2017011033
May 31 <sup>st</sup> , 2019	Depo	Arifi vs. HM Sky Harbor	Superior Court (AZ) CV2017015571
May 1 <sup>st</sup> , 2019	Depo	Scottsdale vs Broan	US District Court (CA) 18-cv-00748-JAK-SP
February 12, 2019	Trial	Bergeson vs. West Frontier	Pima County (AZ) CV 2008-0002
January 4 <sup>th</sup> , 2019	Depo	Vasquez vs Allstate	Superior Court (AZ) CV201603368
November 9 <sup>th</sup> , 2018	Depo	Milton vs BNSF	Superior Court (AZ) CV2017013075
April 20 <sup>th</sup> , 2018	Depo	Donley v Dometic	Yuma Country Superior S1400CV20170007
December 21 <sup>st</sup> , 2017	Arb	Siebert v APS	Superior Court No. CV2017-00454
December 6 <sup>th</sup> , 2017	Depo	Farmers v AZ Golf	Superior Court (AZ) No. CV2016-050257
August 29 <sup>th</sup> , 2017	Depo	Farmers v Mercedes	Yuma County (AZ) Superior No. S1400CV20160000
August 7 <sup>th</sup> , 2017	Trial	Khalaj v Leviton	Maricopa (Az) Superior No. CV2015006917
October 24 <sup>th</sup> , 2016	Depo	Farmers Vs. Elster	Maricopa County (AZ) No. CV2013-053623
September 28 <sup>th</sup> , 2016	Depo	Farmers v. Amazing Lighting	Bernadillo (NM) Court No. D-202-CV-2015-01379
August 30 <sup>th</sup> , 2016	Arb	Engdahl V. Zone Electric	Superior (AZ) Court No. CV 2012-007435



<u>Date</u>	<u>Type</u>	<u>Case Name</u>	<u>Jurisdiction</u>
April 28 <sup>th</sup> , 2016	Depo	Rouda V. Jakel	Superior (AZ) Court No. CV 2015-002143
April 20 <sup>th</sup> , 2016	Depo	Engdahl V. Zone Electric	Superior (AZ) Court No. CV 2012-007435
March 29/30, 2016	Trial	Libby V. Lichte	Pima County (AZ) Superior No. CV20117776
November 14 <sup>th</sup> , 2015	Depo	Schneider V. Hobbico	Maricopa County (Superior) No. CV2012018271
October 14 <sup>th</sup> , 2015	Video Depo	Casual Nails V. Jackson	Pima Country (Superior) No. CV20127258
October 28 <sup>th</sup> , 2013	Depo	Negrete V. Broan	Yuma County (Superior) No. CV2011-01081
October 9 <sup>th</sup> , 2013	Trial	Boyle V. Ford	Pima County (Superior) No. CV2012-0675
September 20, 2013	Depo	Boyle V. Ford	Maricopa County (Superior) No. CV2012-0675
August 20 <sup>th</sup> , 2013	Depo	Amica Vs, Broan	Maricopa County (Superior) No. CV2012-002388
June 10 <sup>th</sup> , 2013	Depo	Feather vs. Auto Owners	Maricopa County (Superior)
April 8 <sup>th</sup> , 2013	Depo	State Farm vs. Jakel	Maricopa County (Superior) No. 2011-001424
November 14 <sup>th</sup> , 2012	Depo	State Farm vs. Jakel	Maricopa County (Superior) No. 2011-001424
Sept 20 <sup>th</sup> , 2012	Depo	Voboril Vs. Gockel	Yavapia County (Superior) No. cv1300cv20080295
June 14 <sup>th</sup> , 2012	Trial	State of Arizona vs. Michael Marin	Maricopa County (AZ) Superior No. CR2009-154846



<u>Date</u>	<u>Type</u>	<u>Case Name</u>	<u>Jurisdiction</u>
June 7 <sup>th</sup> , 2012	Trial	State of Arizona vs. Michael Marin	Maricopa County (AZ) Superior No. CR2009-154846
January 31 <sup>st</sup> , 2012	Depo	Lichte Vs. Libby	Pima County (AZ) Superior No. CV20117776
November 18 <sup>th</sup> , 2011	Defense Interview	State of Arizona vs. Michael Marin	Maricopa County (AZ) Superior No. CR2009-154846
September 27 <sup>th</sup> , 2011	Depo	Western Ins. Vs Chandler Stonebridge	Maricopa County (AZ) Superior No. CV2010-05084
May 13 <sup>th</sup> , 2011	Depo	State Farm Vs. Venom	Bernalillo County (NM) Second Court cv 2009-11769
October 20 <sup>th</sup> , 2010	Depo	Lliff Vs. Ford Motor	Maricopa County (AZ) Superior Court cv2008-013588
April 8 <sup>th</sup> , 2010	Depo	Redemptorists Vs LJS Electric	Pima County (AZ) Superior Court cv2007-5799
October 5 <sup>th</sup> , 2009	Depo	Farmers Ins. Vs. Haskins Electric	Maricopa County (AZ) Superior Court cv2008-050895
November 7, 2008	Depo	RTB Enterprises vs Rural Metro	Yuma County (AZ) Superior Court cv2006-00704
February 11, 2008	Depo	CAU vs Whirlpool	Maricopa County (AZ) Superior Court cv2006-01345
November 16, 2007	Depo	Taylor vs Sienna Apts	Maricopa County (AZ) Superior

