Wisconsin Civil Justice Council, Inc.  
*Daubert Comes to Wisconsin*  
January 11, 2012

Intellectual Property Litigation  
and *Daubert* – A Case Study of  
*Fail-Safe v. A. O. Smith*

Don Best and Ed Sarskas  
Michael Best & Friedrich LLP

---

*I need someone well versed in the art of torture—do you know PowerPoint?*
Lessons Learned about Paid Experts

Factual Background

- A.O. Smith – industry leader in the manufacture and sales of pool pump motors.
- Pool pump motors are connected to piping to circulate the pool water to prevent stagnation and are often used to distribute chlorine to prevent cloudy, contaminated water.
- Motor pumps water into the pool through inlets under the surface of the water while drawing water out of the pool through outlets, sometimes located at the bottom of the pool, where the water is typically passed through a filtration system.
The Problem: Suction Entrapment

- Pool suction entrapment occurs when a swimmer is trapped by the suction forces created by water rushing out of a drain in an artificial pool, such as a swimming pool, hot tub, or spa.

During the period 1999 to 2009, the Consumer Product Safety Commission reported ninety-four incidents of "circulation entrapments, including 12 fatalities . . . and 79 injuries."

The Problem: Suction Entrapment

- Since the late 1990s, the swimming pool industry has endeavored to eliminate accidents caused by pool suction entrapment by developing a safety vacuum release system ("SVRS"), the general term used to refer to a drain entrapment release device.

A. O. Smith’s Development of a Load-Sensing Motor

- A.O. Smith’s efforts in developing an anti-entrapment device began in late 2000.
- A.O. Smith decided that the best way to shut off a pool pump motor was to sense changes in “power factor” which occur when the motor is in an under loaded condition.
- A.O. Smith’s original SVRS product was called “eMod”, which evolved into a more advanced version of the product called “Guardian.”
Fail-Safe’s Complaint

- Trade Secret Misappropriation
  - Claiming that Fail-Safe supplied A.O. Smith with certain information, tips and data to assist A.O. Smith in development of its SVRS products.

- Unjust Enrichment
  - Claiming that the information provided to A.O. Smith had value and that it would be unjust for A.O. Smith to retain that value without compensating Fail-Safe.

Fail-Safe v. A. O. Smith: Selection of Experts

- Technical Experts – Liability
  - Mechanical Engineering
    - Fluid Dynamics
  - Electrical Engineering
    - Circuit Board Programming for Motors
    - Swimming Pool Safety

- Damages Experts
  - Trade Secret Misappropriation
  - Unjust Enrichment
Daubert Considerations during Expert Selection

- Education
- Industry Experience
- Field Experience
- Testifying Experience
- Accepted as an Expert in Court
- Never Excluded by a Court
- Credibility

Other Considerations for Suction Entrapment Expert

- Expert looks good in a pink bathing suit
Dr. William N. Rowley, BE, MS, Ph.D., CSP, P.E. (Major General in USAFR)

**EDUCATION:**

- B.E. in Mechanical Engineering, University of Southern California, Los Angeles, California. 1955.
- M.S. in Mechanical Engineering, University of Southern California, Los Angeles, California. 1964.
- Air Command and Staff College, Air University, Maxwell Air Force Base, Montgomery, Alabama. 1971.
- Ph.D., Engineering, Kensington University, Glendale, California. 1979.

Dr. Rowley's Experience

**EXPERIENCE:**

- Founder of Rowley International Inc., a multi-disciplined consulting engineering firm dealing with swimming pool design, hydraulics, swimming pool filtration, and solar heating.
- Consulting Engineer for the 1984 Olympic Pool Complex in Los Angeles, California, the solar heating of the 1984 Olympic Pool Complex, and numerous other major pool filtration and solar projects.
- Presently involved with many local, State, and Federal agencies and foreign governments on Codes and Requirements. In 1974, and again in 1977, personally developed and demonstrated tests for suction entrapment which were accepted by the Federal Consumer Product Safety Commission and were used as a Model Code for all 50 states.
Dr. Rowley’s Other Credentials

- **HONORS**
  - Air Force Distinguished Service Medal with one Oak Leaf Cluster

- **BOARD OF DIRECTORS**
  - National Swimming Pool Foundation (NSPF)

- **MILITARY SERVICE**
  - Major General USAFR, Retired April 1992

- **PATENTS**
  - 23 Patents Total. 13 U.S. Patents. Patents included are: Pumps, Hydraulics, Filtration, Valves, Packaging, Electrical Isolation and Safety.

- **LIFE MEMBER**
  - International Eagle Scout Association

---

Dr. Rowley’s Professional Engineering Registrations

**Professional Registrations:**

<table>
<thead>
<tr>
<th>State</th>
<th>Registration Number</th>
<th>Date</th>
<th>State</th>
<th>Registration Number</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>ME#12864</td>
<td>02/15/63</td>
<td>Dist. of Columbia</td>
<td>PE #7583</td>
<td>01/25/80</td>
</tr>
<tr>
<td>Florida</td>
<td>PE #17881</td>
<td>11/03/72</td>
<td>Idaho</td>
<td>ME #4092</td>
<td>04/20/80</td>
</tr>
<tr>
<td>Texas</td>
<td>PE #34700</td>
<td>01/20/73</td>
<td>Colorado</td>
<td>PE #22523</td>
<td>05/11/84</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>PE #19260-E</td>
<td>03/15/73</td>
<td>Indiana</td>
<td>PE / ME #21193</td>
<td>01/04/85</td>
</tr>
<tr>
<td>Georgia</td>
<td>PE #8846</td>
<td>04/02/73</td>
<td>New York</td>
<td>PE #65281</td>
<td>01/25/89</td>
</tr>
<tr>
<td>New Mexico</td>
<td>ME #5493</td>
<td>12/07/73</td>
<td>Oregon</td>
<td>PE #14831</td>
<td>02/27/90</td>
</tr>
<tr>
<td>Arizona</td>
<td>EM #6320</td>
<td>12/14/73</td>
<td>Maryland</td>
<td>PE #19798</td>
<td>04/17/93</td>
</tr>
<tr>
<td>Hawaii</td>
<td>PE #3021</td>
<td>07/19/74</td>
<td>Michigan</td>
<td>PE #6201041460</td>
<td>12/07/95</td>
</tr>
<tr>
<td>Nevada</td>
<td>PE #4116</td>
<td>04/30/75</td>
<td>Washington</td>
<td>PE #34252</td>
<td>07/21/97</td>
</tr>
<tr>
<td>Delaware</td>
<td>PE / ME #5022</td>
<td>04/08/76</td>
<td>Utah</td>
<td>PE #346269</td>
<td>09/04/97</td>
</tr>
<tr>
<td>California</td>
<td>CR #378</td>
<td>11/23/76</td>
<td>South Carolina</td>
<td>PE #20202</td>
<td>01/31/00</td>
</tr>
<tr>
<td>Kentucky</td>
<td>PE/ME #10355</td>
<td>07/25/77</td>
<td>Massachusetts</td>
<td>ME #42861</td>
<td>04/20/00</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>PE/ME #16990-008</td>
<td>08/15/77</td>
<td>Ohio</td>
<td>PE #65433</td>
<td>01/05/01</td>
</tr>
<tr>
<td>Illinois</td>
<td>PE/ME #82-37684</td>
<td>04/06/79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fail-Safe’s Problem: Modest Product Sales

- Upon filing the lawsuit in 2008, Fail-Safe assumed that A.O. Smith’s sales would be robust.
  - Fail-Safe assumed that State and Federal legislation would mandate that pool owners implement SVRS systems to prevent suction entrapment, and that A.O. Smith’s sales would skyrocket as a result.
  - The reality: During discovery, Fail-Safe learned that A.O. Smith’s sales of the SVRS pool pump motor had been modest, selling approximately $450,000 from 2006-2009.
"My feeling is that while we should have the deepest respect for reality, we should not let it control our lives."

The Problem: Fail-Safe’s Damage Estimates Were Not Grounded in the Facts and the Law

- “[Fail-Safe] estimates that the present value of unjust enrichment damages are somewhere between 13 million and 144 million dollars.” *Fail-Safe v. A. O. Smith*, 744 F. Supp. 2d 870, 881 (E. D. Wis. 2010).
The Problem: Fail-Safe’s Damage Estimates Were Not Grounded in the Facts and the Law

- “To even restate the plaintiff’s argument is to manifest the argument’s absurdity. FS grossly overestimates what it can recover under its remaining unjust enrichment claim.” 744 F. Supp. 2d at 896.

Fail-Safe’s Damages Expert Reports

- Fail-Safe proffered two damages experts
  - Dr. Keegan
    - Masters in Economics from Kansas State University and a MBA and Ph.D. from Harvard University
  - Mr. Fox
    - Managing Director of RSM McGladrey’s Financial Forensics and Valuation Services practice
Fail-Safe’s Damages Expert Reports

- Original Reports - November 3, 2009
- Supplemental Reports - June 18, 2010

  - Rule 26 provides framework for expert disclosure
  - A supplemental report should not be used to fix mistakes or proffer new theories

Dr. Keegan Tried to Establish Strong Demand for the Guardian Product

- The public interest in pool safety
- A. O. Smith’s large market share
- The “enormous market potential” for the Guardian due to:
  - The Baker Act – public pools with a single main drain must incorporate suction entrapment mitigation
  - Litigation resulting from suction entrapment
  - Latent consumer demand
Dr. Keegan Speculated about the Guardian’s Future Success

- A. O. Smith’s “domination” of the in-ground pool market and robust market share in the hot tub pool pump market
- “significant competitive advantages” over competition
- “significant barriers to entry” faced by competitors
- A. O. Smith’s strong dedication to Guardian for every replacement motor and to every OEM manufacturer

The Court’s Concerns with Dr. Keegan’s Report

- Dismissed minimal actual sales to date.
  - Concluded that A. O. Smith was employing a strategy of “small-scale introduction of the Guardian” allowing the defendant’s engineers to “identify and address design issues.” 744 F. Supp. 2d at 876.
  - Cited A. O. Smith’s position in the market as a reason why Guardian will succeed – “going as far as to compare A.O. Smith’s market position with that of Intel Corporation in the computing industry.” Id. at 877.
Dr. Keegan’s Assessment of the Market

- Guardian will potentially generate tens of millions of dollars in annual sales for A. O. Smith.
- Citing to A. O. Smith’s projections, he anticipates annual sales of 350,000 units in the in-ground residential pool market within 18 months of launch and 1.25 million units annually thereafter.
- Citing to A. O. Smith documents, he notes 7M in-ground installed pools and the 5 to 7 year limited life span of a pump & motor, and 170,000 new pools constructed annually from a 6-year old report.

Dr. Keegan’s “Market Estimation Model”

- Dr. Keegan estimated potential future sales of the Guardian based on several assumptions:
  - “market penetration” starting at 12.1% in 2010 and jumping to 100% by 2012
  - sell 9,122,144 units between 2012 & 2019, even though A. O. Smith sold fewer than 5,000 units between 2006 and 2009
  - generate $2,059,085,060 in revenue & $591,231,729 in profit
Mr. Fox’s November 3, 2009 Report

- Assumptions for Mr. Fox’s unjust enrichment damage calculations
  - Fail-Safe’s overall contribution to the Guardian was between 5-55%
  - Thus, based on Dr. Keegan’s estimates, unjust enrichment damages are between 13 million and 144 million dollars
  - Based present value calculations on Dr. Keegan’s sales estimates

Noted Changes between the Original Report and the Supplemental Report

- Fox’s original 2009 Report opined that the actual damages based on actual past sales was at most about $77,000, but 2010 supplemental Report deleted all references to actual past sales.

- 2010 supplemental Report focused entirely on Dr. Keegan’s market estimation model and projected future sales.
The Daubert Motion

- To Preclude:
  - FS from presenting any testimony, opinions or argument that references or relies on future sales of the Guardian
  - Excluding Dr. Keegan & Mr. Fox from testifying about damages for future profits that might possibly be earned on future sales of the Guardian

A. O. Smith’s Daubert and F.R.E. 403 Challenges to the Proffered Testimony

- The proposed testimony of both Dr. Keegan and Mr. Fox regarding the damages for the unjust enrichment claim were unreliable.

- Any testimony regarding references to potential future sales of the Guardian would not assist the trier of fact.

- Even if the testimony would somehow assist the jury, the prejudicial effects of hearing the evidence far outweigh the probative value of the evidence.
The *Daubert* Framework

- If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if:
  - (1) the testimony is based upon sufficient facts or data;
  - (2) the testimony is the product of reliable principles and methods; and
  - (3) the witness has applied the principles and methods reliably to the facts of the case.

Concerns with Dr. Keegan's Proffered Testimony

- The Court identified several concerns with Dr. Keegan's Proffered Testimony
  - proffered testimony was based upon insufficient facts or data; and
  - proffered testimony was not based upon reliable methodology
Dr. Keegan’s Proffered Testimony Was Based on Suspect and Outdated Data

- The Court noted several instances where Dr. Keegan’s proffered testimony was outdated and therefore unreliable.

- “Use of outdated or suspect data as the base of an expert's testimony are proper grounds to exclude that testimony.” 744 F. Supp. 2d at 888.

Dr. Keegan Adopted Unreliable Data

- Just because the data came from your opponent is not sufficient to establish its reliability.

- “Notably, Dr. Keegan, even in his latest report, adopts wholesale from a single, undated AOS PowerPoint slide, which stated that the company hoped to have ‘350k . . . Target Units’ as the starting point for how many Guardian units that would be on the market in the first year and a half.” Id. at 888-89.
Dr. Keegan’s Data & Analysis Were Insufficient

- The reliability of A.O. Smith’s early hopes for the Guardian’s market potential and the underlying data A.O. Smith used should have been "independently verified" before the witness opined on the "plaintiff's future sales." *Id.* at 889.

- “Here, there is no indication that the underlying data that Dr. Keegan relies upon is anything more than a hopeful projection, a far cry from being reliable sources of information that an expert can rely on in forming an opinion." *Id.*

Dr. Keegan’s Data & Analysis Were Insufficient

- “Dr. Keegan's research is a bit outdated to say the least, in that he used the number of pools constructed in 2004 as the means to gauge future demand for pool pump motors." 744 F. Supp. 2d at 888.

- “From the court's perspective, it appears that the witness lists several reasons why the Guardian will be successful, looks at the numbers projected by AOS, and declares, without any true analysis, that AOS's early projections are correct.” *Id.*
Dr. Keegan’s Data & Analysis Were Insufficient

- “All of Dr. Keegan’s analysis is in a black box out of the view of the court, . . . and the court cannot simply take an expert’s word for a specific proposition.” 744 F. Supp. 2d at 888.

“We found Peter Brock’s Black Box. Apparently he veered off the straight and narrow.”
Insufficient Analysis and Circular Logic are Grounds for Exclusion

- Concluding that an event will occur because "someone else has concluded that [event] will occur is utterly circular in its logic and is the epitome of an unreliable methodology," *Id.* (quoting *Lemmermann v. Blue Cross Blue Shield*, 713 F. Supp. 2d 791 (E.D. Wis. 2010)).

“Absolutely! Where there's smoke there's fire.”
Additional Indicators of Unreliable Methodology

- Dr. Keegan dismissed warranted evidence and demonstrated "outright blindness to contrary evidence." *Id.* at 889.

- Dr. Keegan estimated in his first report that the Guardian would be launched in 2010. By the time his second report was released, his earlier predictions had been proven wrong.

- "Nonetheless, while Dr. Keegan acknowledged the problems A.O. Smith had with developing the Guardian, the witness declares summarily that his full review of the evidence in this case suggests that commercialization of the Guardian product will not occur before 2011." *Id.* at 889-90.

Dr. Keegan "Cherry-picked" Evidence

- “[Dr. Keegan] wholly ignores the fact that the marketplace offers a host of products that compete with the Guardian and instead focuses only on the evidence that supports his conclusion.” *Id.* at 891.
The Expert Must Be Able to Explain Methods and Analysis

- “[W]ithout any explanation provided by Dr. Keegan on why he chose the data he did, the court can only surmise that the witness’s methodology is utterly unreliable and must be excluded.” Id.

Concerns with Mr. Fox’s Proffered Testimony

- Wholesale adoption of Dr. Keegan’s conclusions without analysis
  - Arbitrary assumptions about Guardian:
    - ten-year life span
    - would maintain the same market share and demand

Concerns with Mr. Fox’s Discount Rate

- The Court questioned whether Mr. Fox was qualified to testify given his lack of expertise in the pool motor pump market.

- Mr. Fox did not explain how he calculated the discount rate
  - He added 5.5% to the discount rate “based on a category ominously titled other adjustments.” 744 F. Supp. 2d at 894.

- Mr. Fox could not explain that the chosen discount rate reflected the relative risk of the cash flows; he only provided “broad platitudes” about what he thought was appropriate. *Id.*
The Exclusion of Dr. Keegan and Mr. Fox

- Expert testimony regarding damages must be tied to plaintiff’s cause of action.

- Dr. Keegan’s and Mr. Fox’s testimony was only based upon hypothetical and as of yet not realized profits.

- “[A]warding a share of hypothetical future profits as a damages award for unjust enrichment is inappropriate.” *Id.* at 898.

The Court’s Conclusion

- “[T]he damages numbers provided by Dr. Keegan and Mr. Fox seem “pie in the sky” *Id.* at 899.

- Based on the evidence, “no reasonable juror could award the plaintiff damages in the amount theorized by FS’s witnesses, as such evidence is based on a series of wholly unrealistic assumptions and the false premise that the value of the plaintiff’s goods and services allegedly used by the defendant can be determined by looking at what that information in part actually and potentially yielded years after the fact.” *Id.*
Lessons Learned

- A credible damage theory is critical to the case.
- The liability and damages stories should integrate seamlessly and be grounded in the facts and law.
- Carefully consider whether the proffered expert testimony supports your theory.
- Confirm that your damage theory will remain viable even if one or more claims are later dismissed.

Key Questions

- Is the witness qualified to give the proffered testimony?
- Is the testimony relevant?
- Is the testimony helpful to the trier of fact in determining a fact in issue or understanding the evidence?
- Is the testimony, even if helpful, more prejudicial than probative?
- Is the expert relying on sufficient facts and data?
Key Questions

- Is the testimony based upon reliable principles and methods?
  - whether the theory can be tested
  - whether the theory has been subject to peer review
  - whether there is a known or potential rate of error
  - whether the expert adhered to standards and controls
  - whether the proffered theory is generally accepted in the scientific community
  - whether the testimony grows naturally out of research or was developed expressly for the testimony
  - whether the testimony includes unjustifiable extrapolation
  - whether the expert accounted for alternative explanations
  - whether the expert is being as careful as if doing usual professional work
  - whether the field of expertise is known to reach reliable results for the type of opinion the expert is proffering

Key Questions

- Did the expert reliably apply a reliable methodology?
  - whether the expert misapplied a reliable methodology
  - whether the expert used a reliable methodology in a novel or improper way

- Is the expert’s testimony grounded in an accepted body of knowledge and experience in the expert’s field and does the expert explain how the conclusions are soundly grounded?
  - what principles and methods were relied upon
  - how were they relied upon as applied to the facts of the case

- Whether the expert is relying upon *ipse dixit*?
The End

- Questions?
  - Don Best - JDBest@michaelbest.com
  - Ed Sarskas - SESarskas@michaelbest.com
- The views and opinions expressed are solely those of the speakers.