



RESUME OF NOEL D. PUTAANSUU, CFI

SUMMARY

Technical Specialist working in the field of laboratory sciences, fire scene investigation, fire math modeling and forensic analysis. Consulting in fire scene reconstruction, ASTM test methodology, developing fire test equipment, fire litigation and building envelope wind and water penetration. Forensic investigation of appliance failure resulting in water or fire damage. Building science investigations in mold, construction defect, building code and manufacturing installation compliance issues, material failures, and interior temperature/humidity studies. Qualified as an expert witness in civil and criminal trials, arbitration and depositions.

PROFESSIONAL EXPERIENCE

MDE Inc. – Seattle, WA (2002 to Present)

Technical Specialist – Responsible for fire investigation, fire scene documentation, fire modeling and laboratory testing. Consultant for building science issues.

Exterior Research & Design, LLC. – Seattle, WA (2000 – 2002)

Senior Laboratory Technician and Fire Specialist – Responsible for laboratory functions including testing, sample preparations, laboratory protocol and laboratory accreditations to ICBO, Miami-Dade County and NVLAP. Design, implementation and calibration of test apparatus. Design and operation of window test programs. Design and operation of accelerated weathering programs with water, temperature and UV cycling. Managed fire related projects for the firm.

Western Fire Center, Inc. – Kelso, WA (1994 – 2000)

Project Manager - Fire Investigation: Cause and area of origin determination by investigative means and by surveying and documenting the scene of a fire or explosion. Computer controlled Labview data acquisition sensor data logging and control systems development and maintenance, 3D models of test configurations and building construction, dimensional models for detail of measurements. Selection and calibration of sensors used in the facility. Interface to computer data acquisition system. Designed and maintained environmental chambers for accelerated weathering, extreme temperatures, humidity and ultraviolet light. Produced 3D animations and exhibits for courtroom litigation. Model, texture and render the frames and combine into a seamless broadcast quality video production. Contracted and supervised personnel when needed for larger projects. Created broadcast quality video productions from test footage and produce final copies.

Lower Columbia College – Longview, WA (1998 – 2000)

Instructor for Fire Science 110, Fire Behavior, 3 quarter credits with class sizes ranging to 37 students. Course work developed from the text Principles of Fire Behavior, by James G. Quintiere.

Cowlitz 2 Fire and Rescue – Kelso, WA (1992 – 2000)

Trained and served as a volunteer firefighter. Trained fire department personnel in fire behavior. Conducted live fire training exercises for firefighter active duty requirement. Designed a "Fire-On-Demand" system and procedures used to train firefighters in live fire drills.

Weyerhaeuser Company Fire Technology – Longview, WA (1982 – 1994)

Laboratory Technician – Operated ASTM E108 roofing fire test apparatus. Operated ASTM E84 flame spread test apparatus and instructed clients in its operation and the information provided by the test method. Performed specialized testing for litigation. Conducted FAA fire testing. Researched available software to apply to tasks. Generated custom graphic plots from data collected in fire testing to be used in formal report. designed and constructed process control hardware & software and trained personnel in its' use.

PROFESSIONAL REGISTRATION, CERTIFICATION & ASSOCIATION

National Association of Fire Investigators, (NAFI) Certified Fire and Explosion Investigator (CFEI)
ASTM International Committee Member E5 Fire Standards
International Association of Arson Investigators (IAAI), Certified Fire Investigator (CFI), Washington State Chapter Board of Directors (2005), 2nd Vice President (2006), 1st Vice President (2007), President (2008 to 2010); Editor of *The Arson Reporter* (IAAI Washington State Chapter publication) (2010 Outstanding Publication Award) (2007 to Present); Website Manager of IAAI Washington State Chapter

EDUCATION & TRAINING

International Association of Arson Investigators Annual General Meeting / Annual Training Meeting, Orlando, FL (2010)
Travis Industries gas, pellet and wood burning appliance installation (2007)
Society of Fire Protection Engineers Advanced course in FDS fire modeling (2005)
Mold Epidemic Fact or Fiction (2003)
Fire Findings electrical and gas seminar, Benton Harbor Michigan (2003)
International Association of Arson Investigators Washington State Chapter Conference (2002 – 2009)
Certified Fire Investigation Course administered by National Association of Fire Investigators (2002)
Cowlitz 2 Fire & Rescue, Cowlitz County, WA Fire Fighter Training (1995 – 2000)
Evergreen College, Olympia, WA (1990)
AA Industrial Sensor Technology Lower Columbia College, Longview, WA (1987)
AA Data Processing Lower Columbia College, Longview, WA (1983)

RESEARCH PROJECTS

Snack Food heat release study
Heat release and calcination of gypsum drywall
Falling hot particle ignition of combustibles physics
FDS modeling validation of the ASTM E84 Tunnel
Spontaneous combustion of wood fiber debris on hot surfaces
High temperature accelerants (HTA)
ISO 9705 standard for large-scale calorimeter and thermal oxidizer (including field installation)

PRESENTATIONS

Fire Modeling and Evacuation Conference, Baltimore, MD (2011)
International Association of Arson Investigators Annual General Meeting Electrical Fire Cause Analysis 8-hour course copresented with Douglas J. Barovsky, Orlando, FL (2010)
Washington Region 4 Fire Investigation Meeting (2007)
Fire and Materials Conference in San Francisco (2007)
IAAI Washington State Conference and NW Fire and Arson Conference, Electrical and Building Fuel Gas Fires based on NFPA 921 (2003, 2004, 2007)
Oregon IAAI Annual Conference, NFPA 921 Electrical Course (2006, 2009)
MAIS Seminar, Forensic Investigations (2004)
IAAI Washington State Conference, Fire Modeling (2004)

PUBLICATIONS

Mann, D.C. & Putaansuu, N.D. (2010), "Studies of the Dehydration / Calcination of Gypsum Wall Board", *Fire and Arson Investigator*, 61:1, 38-44.
Moore, P.J. & Putaansuu, N.D. (2007), "A Comparison Study of Non-Contact Distance Measurement Tools", *Fire and Arson Investigator*, 57:1, 40-42.
Mann, D.C. & Putaansuu, N.D. (2006), "Alternative Sampling Methods to Collect Ignitable liquid Resides from Non-porous Areas Such as Concrete", *Fire and Arson Investigator*, 57:1, 43-46.
Putaansuu, N.D. (2005), "Couches, Mattresses and Other Upholstered Furniture," *The Fire Place*, Spring 2005, 22-25.
Putaansuu, N.D. (2004), "Tips On Fire Scene Documentation For Fire Modeling," *The Fire Place*, Fall 2004, 33-35.



Putansuu, N.D. (2002), "EIFS and the Fire Investigator," *The Fire Place*, September 2002, 21-24.
Putansuu, N.D. (1995), "The ABCs of Roof Fire Testing," *RSI Magazine*, July 1995.