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CURRICULUM VITAE
OF
JOHN BYRON PAGELS
May 30, 2018

EDUCATION

St. Cloud State University - 1996
B.Sc. Electrical Engineering.

Anoka-Ramsey Community College - 1990
Associate in Applied Science - Electronics Technology

Anoka-Ramsey Community College - 1989 to 1993
Courses applying to B.Sc. Electrical Engineering.

University of Minnesota - 1987
Courses required for Secondary Education Teaching License in Vocational Education.

Anoka Technical College - Electronics - 1982
Diploma in Electronics Research and Development

North Hennepin Community College - 1980
Associate of Arts Degree

Park Center Senior High School - 1977 - Diploma
Brooklyn Park, Minnesota

Seminars – Courses Taken By Me

Ethics for U.S. Engineers, SunCam Course Number 224, 1 PDH,
June 14, 2018

Ethics for Engineers Based on the NSPE “Code of Ethics for Engineers”, SunCam Course Number
324, 1 PDH June 14, 2018

IAAI International Training Conference, Frisco, TX - 36 hours Tested
May 21 - May 25, 2018

IEEE Product Safety Engineering Society Symposium, San Jose, CA – 24 hours
May 14 – May 16, 2018

Minnesota IAAI Annual Conference, St. Cloud, MN - 20 Hours tested.
March 21 – March 23, 2018

Handling 1st & 3rd Party Subrogation & Liability Claims – 7 Hours
Presented by Whitmore Fire Consultants, September 15, 2017

Minnesota IAAI Annual Conference, St. Cloud, MN - 20 Hours – Tested.
March 22 – March 24, 2017.

HAZWOPER Refresher Training, 29 CFR1910.120/CFR1926.65, 8 Hour
November 10, 2016, Ted Beyer, Ex Safety LLC

Asbestos Awareness Training - 2 Hours
November 10, 2016, Ex Safety LLC

In the Beginning... Building A Subrogation Case – 7 Hours Tested
Presented by Whitmore Fire Consultants, July 11, 2016

Wisconsin IAAI Annual Conference, Stevens Point, WI - 20 Hours – Tested
June 2 – June 4, 2015. NFPA 921, NFPA 1033, Interviewing Techniques, Metallurgy, Photography

Minnesota IAAI Annual Conference, St. Cloud, MN - 20 Hours – Tested.
March 25 – March 27, 2015. Note Taking/Diagramming Using Tablets, Burned Human Remains, NFPA 1033, Investigator Health/Safety, Utilizing Building Electrical to Help Determine Area of Origin, Vehicle Fires, Charging Strategies And Statute Interpretation, Basic Wildlife Fire Investigation Vehicles.

AVCAM, Eagan, MN, December 3, 2014.
Mark Lanterman - Computer Forensic Services – Cell phone and computer forensics.
Chris Marchetti – CARFAX - CARFAX for Police.

HAZWOPER Refresher Training, 29 CFR1910.120/CFR1926.65, 8 Hour
October 13, 2014, Ted Beyer, Ex Safety LLC

North Dakota IAAI Annual Conference, Jamestown, ND, 16 Hours - Tested
September 17 – September 19, 2014. Complex Arson, Fire Dynamics, and Effects of Multiple Ventilation Openings on Post-Flashover Compartment Fire

Ethics I & II for Professional Engineers, 2 PDH on-line for PE re-licensure,
July 28, 2014

Internet Profiling and Intelligence Gathering, by Michele Stuart of JAG Investigations, Inc.,
Presented by Whitmore Fire Consultants, October 4, 2013

North Dakota IAAI Annual Conference, Jamestown, ND
September 18 – September 20, 2013. Vehicle Fire Investigation with 6 live burns (Jeff Morrill), and the Impact of Digital Evidence (Mark Lanterman). 20 Hours – Tested.

Minnesota IAAI Annual Conference, St. Cloud, MN
March 27, 2013. Report Writing/New Technology, and Truck/Bus Fires/O & C Diesel, Alternative Fuel, Hybrid Vehicles - 20 Hours – Tested.

HAZWOPER Refresher Training, 29 CFR1910.120/CFR1926.65, 8 Hour
November 5, 2012, Knutson & Beyer Group, Inc.

North Dakota IAAI Annual Conference, Jamestown, ND
September 19 – September 21, 2012. 20 Hours, Tested

Wisconsin IAAI Annual Conference, Stevens Point, WI
June 5 – June 7, 2012. 20 Hours - Tested

Minnesota IASIU Conference, Shoreview, MN, Internet research and Intelligence Gathering,
Michele Stuart of JAG Investigations, November 8, 2011

North Dakota IAAI Annual Conference, Grand Forks, ND
September 14 – September 16, 2011. Tested

Minnesota IAAI Annual Conference, St. Cloud, MN
March 23 – March 25, 2011. 20 Hours - Tested

HAZWOPER Refresher Training, 29 CFR1910.120 - 8 Hour
October 26, 2011, Knutson & Beyer Group, Inc.

Asbestos Awareness Training - 2 Hours
October 26, 2011, Knutson & Beyer Group, Inc.

Costly Mistakes in Fire Investigations, Subrogation & Litigation
Presented by Whitemore Fire Consultants et al, September 17, 2010

North Dakota IAAI Annual Conference, Grand Forks, ND
August 11 - August 13, 2010. Tested

North Dakota IAAI Annual Conference, Fargo, ND
August 19 - August 21, 2009. 20 Hours, Tested

What's Hot In Fire Litigation
Presented by Whitemore Fire Consultants et al, May 1, 2009

Electrical Grounding – NEC Article 250 Presented by North Central Electrical League, Paul
Archambault, January 13 & 20, 2009

40 Hour HAZWOPER Training, 29 CFR1910.120“
October 8, 2008, Knutson & Beyer Group, Inc.

“We Didn't Start the Fire”
Presented by Whitemore Fire Consultants et al, April 18, 2008

Investigation of Electrical Appliance Related Fires, 22.5 Hours - Tested
IAAI/AHAM (Association of Home Appliance Manufacturers), June 20-22, 2007

Auto Theft in the 21st Century - by Mike Bender, VINTrack
AVCAM, April 26, 2007

Packaging Evidence
MN IAAI Quarterly Meeting, December 13, 2006

North Dakota IAAI Annual Conference, Vehicle Fires, Fargo, ND
August 23 - August 25, 2006. Tested

Vehicle Theft Immobilizer Systems – by Walter O. Herndon, presented by
AVCAM and IASIU, May 4, 2006

Building Strategies for Today's Fire Investigations –
Presented by Whitemore Fire Consultants et al, April 21, 2006

North Dakota IAAI Annual Conference, Fargo, ND
August 24 - August 26, 2005. Tested

Minnesota IAAI Annual Conference, St. Cloud, MN
March 30 - April 1, 2005. Tested

Asbestos awareness for fire investigators, certificate issued,
MN IAAI Quarterly Meeting, September 10, 2003

Lightning 101 - by Kim Marsden of Vaisala, May 6, 2003

Interviewing Techniques – by AVCAM and IASIU, April 24, 2003

Minnesota IAAI Annual Conference, St. Cloud, MN
March 26-28, 2003. Tested

“Anatomy of An Arson Case”; A Case Study, by Ward & Whitemore et al,
October 25, 2002
Minnesota IAAI Annual Conference, St. Cloud, MN
March 27-29, 2002. Tested

Automotive “Black Box” Technology – by Scott Palmer of Injury Sciences, presented by
AVCAM and IASIU, March 25, 2002

Lightning 101 - by Jared Brumley of Global Atmospheric, March 20, 2002

"Metallurgy at the Fire Scene" - by Dave Kramer, MN IAAI Quarterly Meeting,
December 12, 2001

“Tomorrow's Fire Claim in Today's Environment” A Hypothetical Fire Claim Case Study, by Ward & Whitemore et al, October 11, 2001

LP & Propane Gas Explosion and Fires by Bill Mahre, MN IAAI Quarterly Meeting, September 12, 2001

Household Appliance Failures by Keith Beecher- Appliance Analysis, MN IAAI Quarterly Meeting, June 13, 2001

Minnesota IAAI Annual Conference, St. Cloud, MN
March 21-23, 2001. Tested

WILDFIRES - MN IAAI Quarterly Meeting, September 13, 1999
LOW VOLTAGE FIRE ALARMS – 4 hr hands-on training in installing, wiring, and troubleshooting. Presented by Edwards Signaling Company for the Minnesota Electrical Association at Viking Electric, Rochester, Minnesota – May 10, 2000

Vehicle Fires and Investigation – Walter Herndon – Anoka-Hennepin Technical College - 12 vehicle fires of various scenarios and vehicle manufactures, October 12, 1999

NFPA 921, MN IAAI Quarterly Meeting, September 8, 1999

Structural Collapse for Investigators by Kevin Vito, MN IAAI Quarterly Meeting, June 9, 1999

Minnesota IAAI Conference, St. Cloud, MN
March 24-26, 1999. Tested

Lightning 101 Seminar – Global Atmospherics, Dan Curtis, Global Atmospherics, May 21, 1998

Motor Controls Specialty Class - Minnesota Electrical Association, Jack Hammerstrom, Allen-Bradley/Rockwell Automation, March 20, 1998

Motor Controls Specialty Class - Minnesota Electrical Association, Sam McCullough, General Electric, January 23, 1998

Christmas Tree Fire Sets - MN State Fire Marshals Office, Denise DeMars DSFM, May 4, 1997

"Electrical and Set Fires" - Hennepin Technical College Fire Training Division for Instructor Jim Miller, April 4, 1997

"Arson Burns, Electric/Gas Appliances & Metallurgy", Anoka Technical College, March 10, 1994

"Arson Live Burn", Anoka Technical College, May 21, 1993

"On-Scene Fire/Arson Investigation", at Anoka Technical College for the National Fire Academy, October 1991

"Electrical Fire Investigation", Anoka Technical College, December 14, 1990

"Live Burn Structure Level II", Anoka Technical College - September 14, 1990

International IAAI Conference, Dearborn, MI
May 6-11, 1990. Achieved Certificate of Attainment.
Hennepin Technical College Fire Training Division - 1989
Fire/Arson Investigation I.

Hennepin Technical College Fire Training Division - 1989
Fire/Arson Investigation II.

Hennepin Technical College Fire Training Division - 1989
Fire/Arson Investigation III.

Annual Fire and Fraud Investigators Conference. Kansas City Arson Task Force,
September 12, 1989

"Electrical and Set Fires", including live burns, for Morrison and Coggins,
Marinette, Wisconsin and Menomonee, Michigan, August 23-25, 1989

"Electrical Fire Investigation" for the Minnesota State Fire Marshal's office, including lecture, lab and "hands-on" fire sets and scene investigation of structures, appliances, and vehicles. Assisted/Instrumented. November 1-3, 1988

Seminars/Courses - Taught By Me

“Lightning”

MN Chapter of the International Association of Special Investigation Units, April 14, 2009

Vehicle Fires From Multiple Perspectives, Presented with Brian Haag of Whitemore Fire Consultants, John Wehrs of State Farm, and Attorneys Larry & Jeff Baill of Yost & Baill – Part of the “We Didn’t Start The Fire” seminar Presented by Whitemore Fire Consultants April 18, 2008

“Arc Mapping (Simplified)”

For the Wright County Fire Investigation Task Force, September 4, 2008

“Tools for Failure Analysis”

North Star Imaging, August 7, 2008

"Electrical Investigation of Vehicle Fires"

For the Key West Fire Department, April 9, 2007

North Dakota IAAI Annual Conference, Vehicle Fires, Presented with Mike Herrold
Fargo, ND August 23 - August 25 2005.

Anatomy of a Vehicle Fire, Presented with Brian Haag of Whitemore Fire Consultants, part of “Building Strategies For Today’s Fire Investigations” – Presented by Whitemore Fire Consultants et al, April 21, 2006

"ARC MAPPING (SIMPLIFIED) - IN STRUCTURES"

For the Key West Fire Department, March 31, 2006

"ARC MAPPING (SIMPLIFIED) - IN STRUCTURES AND VEHICLES"

For the North Dakota IAAI, August 25, 2005

“TOMORROW’S FIRE CLAIM IN TODAY’S ENVIRONMENT” A Hypothetical Fire Claim Case Study, by Ward & Whitemore et al, October 11, 2001

“ATF ELECTRICAL FIRE INVESTIGATION COURSE” for the Kane County Arson Task Force, and the DuPage County Arson Task Force. Lecture and Hands-on training in electrical fire causation and elimination, including live-burn fire sets in electrically energized structures. Taught with Dr. Robert J. Svare P.E., Mark Svare of SPE, and the Bureau of Alcohol, Tobacco, and Firearms Certified Fire Investigators. Chicago, IL
40 Hours, June 18-22, 2001

“ADVANCED ELECTRICAL FIRE INVESTIGATION AND ELECTRICAL FIRE SETS” –
Conduct lectures and hands-on laboratories for the Bureau of Alcohol Tobacco and Firearms
(ATF) annual certified fire investigator (CFI) recertification program,
Kinston, North Carolina – March 20-23, 2000

“The Multiple Step Fire Investigation” for Minnesota Association of Farm Mutual Insurance
Companies (MAFMIC) 05/25/99

“Vehicle Fire Investigations” for the Minnesota IAAI Annual Conference, St. Cloud, MN March
24, 1999.

"Electrical Fire Investigation", for Minnesota Bureau of Criminal Apprehension (BCA) including
Vehicle Fires 02/25/98

"Product Liability and Forensic Engineering", University of Minnesota IEOR 5321 Industrial Safety
Course - May 25, 1995

“Electrical Fire Investigation”, Hennepin Technical College Fire Training Division Fire/Arson
Investigation Class, May 8, 1991.

"Electrical Fire Investigation - On-Scene Fire/Arson Investigation",
Anoka Technical College, April 1991.

Seminars/Courses (Assisted or instrumented by me)

“Arson Live Burn”- Fire sets for the MN Sectional Fire School, Redwood Falls, MN, Jamie Novak,
Assisted/Instrumented 04/16/99

“Arson Live Burn”- Fire sets for the MN Sectional Fire School, Lake Crystal, MN, Jamie Novak,
Assisted/Instrumented 02/27/99

“Live Burn” for the Minnesota Chapter of the IAAI Annual Fire/Arson Conference,
Instrumented - March 11, 1996

"Arson Burns, Electric/Gas Appliances & Metallurgy" with the Minnesota State Fire Marshal's
Office and Anoka Technical College, Instrumented, March 10, 1994.

"Arson Burns" for Anoka Technical College, Instrumented, March 9, 1994

"Arson Live Burn" Anoka Technical College - Coon Rapids, MN.
Instrumented. August 30, 1993

"Electrical System and Appliance Fire Sets" with the Minnesota State Fire Marshal's Office and
Anoka Technical College – Bethel, Minnesota. Instrumented. May, 21, 1993

"Newton's Apple" for Public Broadcasting (PBS), 1 episode, St. Paul, MN.
Set up and ran instrumentation, created Time Vs Temperature graphs from the data collected. May 13, 1993.

Fire Sets for "On-Scene Fire/Arson Investigation" Anoka Technical College –
Isanti, MN. Assisted. October 25, 1991.

"Electrical Fire Sets" for BCA Fire/Arson Investigation Class with Deputy State Fire Marshal's
Jamie Novak & Kevin Schuman - Maple Grove, MN. Assisted/Instrumented. August 31, 1991.

"Electrical & Set Fires" for the Minnesota BCA Fire/Arson Investigation Class
with Deputy State Fire Marshal's Jamie Novak & Kevin Schuman
Maple Grove, MN. Instrumented. August 30, 1991.

"Appliance Fires", Seminar for the 1990 Iowa IAAI Conference.
Assisted. September 25, 1990.

"Electrical Fire Sets" for Minnesota State Fire School and BCA with DSFM Jamie Novak, Coon
Rapids, MN, Assisted/Instrumented. September 10 & 14, 1990.

International IAAI Conference, Dearborn, MI
Assisted with Electrical seminar. Participant in the conference.
Achieved Certificate of Attainment. May 6-11, 1990.
Fire Sets for 1990 Minnesota IAAI Conference with DSFM Jamie Novak,
Eden Prairie, MN. Assisted/Instrumented, April 24, 1990

"Appliance Fires", Seminar for the 1990 Minnesota IAAI Conference.
Assisted. March 1, 1990.

"Electrical Appliance Fires - The Chicken or the Egg" at the 22nd Annual Fire and Fraud
Investigators Conference. For the Kansas City Arson Task Force.
Assisted. September 12, 1989.

"Electrical and Set Fires", including live burns, for Morrison and Coggins.
Presented to insurance investigators, Michigan State Police, and Wisconsin Fire Marshals,
Marinette, Wisconsin and Menomonee, Michigan.
Assisted/Instrumented. August 23-25, 1989.

"Product Failure as a Heat Source" for Jardine, Logan and O'Brien's Fire Loss Workshop, St. Paul,
MN, Assisted. May 24, 1989

"Electrical Fire Sets" for Minnesota State Fire School and BCA with DSFM Jamie Novak
Woodbury, MN, Assisted/Instrumented. May 20, 1989.

"Electrical Fire Investigation - Lectures and Demonstrations" for

American Family Insurance Company. Assisted. March 28-29, 1989.

"Electrical Fire Investigation" for the Minnesota State Fire Marshal's office Included lecture, lab, and "hands-on" fire sets and scene investigation of structures, appliances, and vehicles. Assisted/Instrumented. November 1-3, 1988

"Electrical Fire Sets" for Minnesota Bureau of Criminal and Apprehension (BCA) with Minnesota State Fire Marshals and city of Golden Valley. Assisted/Instrumented. October 7/8, 1988.

MEMBERSHIPS

International Association of Arson Investigators (IAAI) -
Membership Number L-4489

Minnesota Chapter of the IAAI -
Membership Number 163

North Dakota Chapter of the IAAI -
Membership Number ND-180

Wisconsin Chapter of the IAAI -
Membership Number

Institute of Electrical and Electronics Engineers -
Membership Number 04156048

National Fire Protection Association, Inc.

Anti Vehicle Crime Association of Minnesota (AVCAM dissolved 2018)

LICENSES - AWARDS

Licensed Professional Engineer - Minnesota License # 43344

Licensed Professional Engineer - Wisconsin License # 39293-006

Licensed Professional Engineer – South Dakota License # 9903

Licensed Professional Engineer – North Dakota License # PE-9937

Licensed Professional Engineer – Iowa # License #21755

MN IAAI – Investigation Team of the Year – March 2015

Department of the Treasury - Alcohol, Tobacco and Firearms -
Certificate of Appreciation for assisting with data-logging and computer equipment for the ATF's
Certified Fire Investigator Program. August 1993

State of Minnesota Vocational Teaching License –
"Electronics Technician Occupations/Applied".

Epson Factory Authorized Technician - for repair of Computers and Printers.
School Bell Award - Video productions for Anoka Technical College
Electronics Department.

Carrier of the Week - Post Publications

WORK EXPERIENCE

November 2004 - Present

Chief Engineer

President and Owner of Pagels Engineering, Inc.

Forensic Electrical Engineering & Expert Witness

Conduct defense and plaintiff investigations in matters where electricity or electrical utilization equipment has been alleged to have played a role. This includes fire, equipment failure/damage, electrical shock, electrocution, personal injury, alarm system malfunction/failure, agricultural suffocations...

The investigations can occur at the loss site, at salvage facilities, in a laboratory, or at other facilities with specialized equipment (i.e. X-ray equipment, scanning electron microscope...). These investigations include documenting the fire/accident scene, preserving evidence, working with experts of different disciplines when they are required, and consultation through out the litigation process, culminating in providing expert testimony in depositions and trials.

Client Types That Have Been Represented:

Electrical Equipment manufacturers

Electrical household appliance manufacturers

Electrical contractors

Vehicle manufacturers

Insurance companies (plaintiff and defense)

Law Firms

Local, State, and Federal Agencies

September 1988 - November 2004

Svare Professional Engineering

Consulting & Forensic Electrical Engineers

Conduct investigations of fires and accidents with an alleged electrical cause or involvement on behalf of insurance companies, attorneys, manufacturers, and private parties. This may include the examination of equipment on-scene and/or in the laboratory, documenting the fire/accident scene, preserving the evidence, and working with other experts of different disciplines.

1988 - November 2004

Prompt Electric

Apprentice electrician

1982 - 1988

Anoka Technical College

(Electronics Technical Specialist)

Repair and maintain electronic test equipment, provide instructor preparatory services, and supervise work-study students.

1985 - 1988

Anoka Technical College
(Electronics Instructor/Substitute)

Taught Second Year Electronics classes and specialty classes in Pulse Techniques, Digital Mathematics, and BASIC Programming. Substitute taught in all areas of electronics from Basic to Advanced Electronics.

1984 - 1988

Anoka-Ramsey Community College

Taught Electronic Engineering Technology labs including AC/DC Electronics, Discrete Semi-Conductor Devices, Linear Devices, and Digital Electronics.

1983 - 1984

Basic Systems and Supplies Inc.

Epson Factory authorized warranty repair technician.

Set up and maintained the service department, repaired computers, printers, and other computer peripherals in shop and on-site. Also assisted in sales.

1981 – 2004

Circuit board design and fabrication, proto-typing, electrical testing, electrical equipment wiring/assembly, consumer electronics repair, inventing and production of product repair support equipment.