



## CURRICULUM VITAE

### Matthew J. Wilke, CFI

#### EMPLOYMENT HISTORY:

- 11/2013 to present Fire Investigator with Fire Cause Analysis  
**Duties** - Fire investigator responsible for conducting fire and explosion investigations to determine the origin and cause.
- 2008 to present Captain-Bismarck Fire Department - Fire Investigation Training  
**Duties** - Responsible for setting up and conducting quarterly training for department investigation team. Responsible for conducting fire/explosion investigations and moderating case studies within the department.
- 2001 to present Captain Bismarck Fire Department  
**Duties** - Complete and direct Fire Safety Inspections for a fire company and complete fire investigations assigned to our shift including scene examination and report writing to determine origin and cause.
- 2000 to present Bismarck Fire Department Investigation team  
**Duties** - Fire investigator responsible for conducting fire and explosion investigations to determine origin and cause
- 1996 to 2001 Firefighter Bismarck Fire Department

#### FIRE RELATED TRAINING RELATING TO FIRE INVESTIGATIONS:

#### EDUCATION:

##### **Bureau of Alcohol, Tobacco, Firearms and Explosives:**

2016 12/5/16 - 12/16/16 Advanced Origin & Cause/Courtroom Testimony

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#### OFFICES:

California  
Arizona  
Oregon  
Nevada  
N.Dakota

#### CORPORATE OFFICE:

935 PARDEE STREET  
BERKELEY, CA.  
94710-2623 USA  
800.726.5939  
www.fcafire.com

## **North Dakota IAAI Annual Investigative Conference**

- 2015 17<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Scene Fire Behavior & Dynamics/Residential Electrical & Gas Systems Crude by Rail/Fatal Fires
- 2014 16<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Scene Complex Arson Investigation/Effects of Multiple Ventilation openings- Post Flashover Compartment Fires/Fire Dynamics
- 2012 14<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Scene Documentation, conducting interviews, building construction
- 2011 13<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Advanced Fire Investigation Techniques
- 2009 11<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Advanced Fire Investigation Techniques
- 2008 10<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Basic Fire Investigation Techniques
- 2007 9<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Courtroom Testimony
- 2006 8<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Vehicle Fire Investigative Techniques
- 2003 5<sup>th</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Fire Investigation Techniques
- 2001 3<sup>rd</sup> Annual Fire Investigative Conference NDIAAI - 20 tested hrs Fire Investigation Techniques

## **CFI Trainer.net**

Analysis of Station Nightclub Fire - Arc Mapping Basics - Basic Electricity - Building Structures Ventilation - Candle Experiments - Charleston Sofa Super Store Fire - Complex Fire Scene Investigations - Candle Experiments - Charleston Sofa Super Store - Complex Fire Scene Investigations - Digital Photography & the Fire Investigator - The Deposition Pt 1 & 2 - Documenting the Event - Effective Investigation & Testimony - Electrical Safety - Ethics and the Fire Investigator - Explosion Dynamics - Fatal Fires - Fire & Explosion Investigations: Utilizing NFPA 1033 & 921 - Fire Investigator Scene Safety - How First Responders Impact the Fire Investigation - Insurance and the Fire Investigation - Intro to Evidence - Intro to Fire Dynamics and Modeling - Investigating Motor Vehicle Fires - MagneTek: A Case Study in the Daubert Challenge - Physical Evidence at the Fire Scene - Post Flashover Fires - Report Writing - Residential Building Construction - Residential Electrical Systems - Residential Natural Gas Systems - Scientific Method for Fire and Explosions Investigation - Search & Seizure - The fire Investigator & the 2011 NFPA 921 Changes - Using Resources to Validate your Hypothesis - Vacant and Abandoned Buildings; Hazards & Solutions - Writing the Initial Cause & Origin Report - Vacant and Abandoned Buildings: Hazards & Solutions

**Other:**

- 9/26/16 Asbestos and Lead Awareness - Argus Pacific  
2-2014 Basic Electricity and the Fire Scene by Hal Lyson and John White / FCA  
9/16/11 Identifying the Source & Fire Debris Analysis - From the Laboratory to the Final Report - Armstrong Forensic Laboratory, Inc.  
2/22/97 Arson Detection for the First Responder  
1985-1989 Bachelor Degree in Communications - University of Mary

**INSTRUCTOR EXPERIENCE:**

- 9/11/15 Presented 8 hrs at the NDIAAI Conference - Fire Dynamics  
10/7/14 Presented "Live Training Burn" workshop with live burn & discussion on fire development, fire patterns and determining the cause.  
2008 Responsible for setting up and conducting quarterly training for department investigation team. Responsible for conducting fire/explosion investigations and moderating case studies within the department.

**PROFESSIONAL EXPERIENCE:**

- 11/2013 Lead investigator with Fire Cause Analysis conducting fire investigations at fire scenes. This includes site examination, interviews, scene documentation, scene reconstruction and written or oral reports to the clients.
- 2014 Successfully renewed the International Association of Arson Investigators Certified Fire Investigator (CFI)
- 2009 Successfully tested and passed the International Association of Arson Investigators examination to become Certified Fire Investigator (CFI)
- 2001 Promoted to Fire Captain with Bismarck Fire Department
- 2000 to present I have been the lead investigator and written the investigation reports involving accidental, natural, incendiary and undetermined fires. I have also been involved with SOGs, assisting investigations and technical review of fire reports with the Bismarck Fire Department.
- 1998 to 2000 Tested to Firefighter 1 & Firefighter 2 certification (North Dakota State Fire Association)
- 1999 Department of Labor Certified Fire Medic

## **PROFESSIONAL ASSOCIATIONS INCLUDE:**

2001 to present ND International Association Arson Investigators member  
2002 to present International Association Arson Investigators member

## **COURTROOM TESTIMONY AND CASES:**

12/16 ATF Advanced Origin & Cause/Courtroom Testimony  
2/15/15 ND US Federal Court vs Anthony DeGroot - O & C Expert  
9/07 NDIAAI Courtroom Testimony class  
6/18/09 State of North Dakota vs Lawrence Bailey  
Filed: Arson - pled guilty to Criminal Mischief

Compliance with NFPA 1033 Chapter 1 – This chapter identifies the minimum job performance requirements for fire investigators. More specifically section 1.3.7 details what the fire investigator must maintain at a minimum and up-to-date basic knowledge of the following topics beyond a high school level. They fall into 16 categories and they may be maintained by attending formal education courses, workshops and seminars and/or through professional publications and journals. The categories are listed below and are supported by the applicable training that corresponds with each competency. This list is not all inclusive and will not reference all courses that may have provided instruction on a variety of NFPA 1033 related topics simultaneously.

### **1. Fire Science**

12/8/16 - ATFAOCCT Fire Chemistry/Fire Scene Forensics 1 hr  
12/5/16 ATFAOCCT Fire Dynamics - 1 hr  
9/16/11 - Fire Debris Analysis - Armstrong - 1 hr  
9/14/11 - ND-IAAI ATC - Post flashover fires - 8 hrs.

### **2. Fire Chemistry**

12/12/16 - ATFAOCCT Fatal Fire Investigations - 1 hr  
12/8/16 - ATFAOCCT Fire Chemistry/Fire Scene Forensics 2 hrs  
12/5/16 ATFAOCCT Fire Dynamics - 1 hr  
9/9/15 - ND-IAAI ATC - 2 hrs  
5/7/15 - CFI - Post flashover fires - 1 hr  
5/24/10 - CFI - Physical Evidence - 1 hr  
1/23/09 - CFI - Fire thru candle experiments - 2 hrs  
11/23/06 - CFI - Station night club fire - 1 hr

### **3. Thermodynamics**

12/5/16 ATFAOCCT Fire Dynamics - 1 hr  
9/9/15 - ND-IAAI ATC - 1 hr  
5/7/15 - CFI - Post flashover fires - 2 hrs  
5/8/11 - CFI - Sofa Super Store Fire - 1 hr  
12/8/10 - CFI - Explosion Dynamics - 1 hr

8/30/08 - CFI - Ventilation & fire investigation - 2 hrs  
11/23/06 - CFI - Station night club fire - 1 hr

#### **4. Thermometry**

9/9/15 - ND-IAAI ATC - 1 hr

#### **5. Fire Dynamics**

12/5/16 ATFAOCCT Fire Dynamics - 7 hrs  
10/15/16 Fire & Arson Mag; Fire origin pattern persistence - 1 hr  
9/9/15 - ND-IAAI ATC - 8 hrs  
5/7/15 - CFI - Post flashover fires - 1 hr  
10/7/14 - FCA live fire training - 5 hrs  
9/14/11 - ND-IAAI ATF - above floor level fires - 4 hrs  
5/8/11 - CFI - Sofa Super Store Fire - 2 hr  
2/8/10 - CFI - Explosion Dynamics - 1 hr  
5/24/10 - CFI - Physical Evidence - 2 hrs  
1/23/09 - CFI - Fire thru Candle Experiments - 2 hrs  
11/23/06 - CFI - Intro to Fire Dynamics & Modeling - 2 hrs  
11/23/06 - CFI - Station night club fire - 1 hr  
8/23/06 - ND-IAAI ATC - car fires - 20 hrs

#### **6. Explosion Dynamics**

12/12/16 - ATFAOCCT Fuel Air Explosions with Demo - 3 hrs  
2/8/10 - CFI - Explosion Dynamics - 2 hr  
7/5/09 - CFI - Fire & Explosion; utilize 1033/921 - 2 hrs

#### **7. Computer Fire Modeling**

12/12/16 - ATFAOCCT Fuel Air Explosions with Demo - 1 hr  
7/20/16 - NDIAAI Fire Modeling 2016 - 2 hrs  
11/23/06 - CFI - Intro to Fire Dynamics & Modeling - 2 hrs  
11/23/06 - CFI - Station night club fire - 1 hr

#### **8. Fire Investigation**

12/9/16 - ATFAOCCT Mock Trial - 4 hrs  
12/9/16 - ATFAOCCT Complex Scene Practical - 2 hrs  
12/6/16 - ATFAOCCT Complex Scene Walk Through/Demo - 2 hrs  
9/17/14 - ND-IAAI ATC - 3.5 hrs  
8/25/14 - FCA - 2 hrs  
11/24/13 - CFI - Ethics & Fire investigator - 3 hrs  
12/24/12 - CFI - 2011 921 Changes - 4 hrs  
9/19/12 - ND-IAAI ATC - Documenting scene 4 hrs  
9/14/11 - ND-IAAI ATC - 921/1033 changes - 4 hrs  
5/8/11 - CFI - Sofa Super Store Fire - 1 hr  
4/21/11 - CFI - First Responder & Investigation - 2 hrs

8/19/09 - ND-IAAI ATC - Appliance fires - 4 hrs  
8/30/08 - CFI - Ventilation & Fire Investigation - 2 hrs  
8/20/08 - ND-IAAI ATC - Basic Fire Investigation - 20 hrs  
2/12/07 - CFI - Motor Vehicle Fires - 4 hrs  
8/27/03 - ND-IAAI ATC - Fire investigation - 8 hrs  
8/22/01 - ND-IAAI ATC - Fire investigation - 8 hrs  
2/20/00 - Arson Detection for the 1<sup>st</sup> Responder - 4 hrs

#### **9. Fire Analysis**

12/9/16 - ATFAOCCT Review of Burns - 1.5 hrs  
12/9/16 - ATFAOCCT Prosecutor Relations - 3 hrs  
12/14/16 - ATFAOCCT Surviving the Defense Expert Challenge - 1 hr  
12/13/16 - ATFAOCCT Facing the Defense Expert Challenge - 4 hrs  
12/13/16 - ATFAOCCT Current Case Law & NFPA 1033/921 - 4 hrs  
12/9/16 - ATFAOCCT Complex Scene Practical - 2 hrs  
6/8/16 - CFI - Effective Investigation & Testimony - 3 hrs  
9/17/14 - ND-IAAI ATC - 2.5  
2/18/13 - CFI - Critical Thinking Solves Cases - 2 hrs  
7/8/08 - CFI - Fatal Fires - 4 hrs

#### **10. Fire Investigation Methodology**

12/9/16 - ATFAOCCT Complex Scene Practical - 1 hr  
2/18/13 - CFI - Magnetek/Daubert - 2 hrs  
1/18/13 - CFI - Validating Hypothesis - 2 hrs  
7/5/09 - CFI - Fire & Explosion-utilize 1033/921 - 2 hrs  
9/1/08 - CFI - Complex Fire Scene - 4 hrs  
7/20/07 - CFI - Scientific Method - 3 hrs  
8/27/03 - ND-IAAI ATC - Fire investigation - 8 hrs  
8/22/01 - ND-IAAI ATC - Fire investigation - 8 hrs

#### **11. Fire Investigation Technology**

9/17/14 - ND-IAAI ATC - 2 yrs  
2/20/12 - CFI - Insurance & the Fire Investigator - 4 hrs  
9/14/11 - ND-IAAI ATC - Forensic Eval of Lubricants - 4 hrs  
12/13/09 - CFI - Digital photography - 4 hrs

#### **12. Hazardous Materials**

9/17/14 - ND-IAAI ATC - 1  
9/19/12 - ND-IAAI ATC - Safety/Hazmat - 4 hrs  
6/15/09 - CFI - Vacant/Abandon Buildings - 4 hrs  
7/7/06 - CFI - Scene Safety - 3 hrs

#### **13. Failure Analysis and Analytical Tools**

12/12/16 - ATFAOCCT Fatal Fire Investigations - 1 hr

12/9/16 - ATFAOCCT Complex Scene Practical - 1 hr  
3/19/14 - CFI - Basic Electricity - 1 hr  
2/18/13 - CFI - Critical Thinking Solves Cases - 2 hrs

#### **14. Fire Protection Systems**

12/12/16 - ATFAOCCT Building Construction - 2 hrs  
12/6/16 - ATFAOCCT Fire Protection Systems - 4 hrs  
12/21/14 - CFI - Residential Building Construction - 3 hrs  
9/19/12 - ND-IAAI ATC - Building Const - 4 hrs  
10/22/04 - IFC transition from 1997 - .6 hrs

#### **15. Evidence Documentation, Collection and Preservation**

12/9/16 - ATFAOCCT CV/Resume 1 hr  
12/9/16 - ATFAOCCT Complex Scene Practical - 1 hr  
12/8/16 - ATFAOCCT Fire Chemistry/Fire Scene Forensics 1 hr  
12/6/16 - ATFAOCCT Report Writing - 2 hrs  
10/19/16 - Accelerant K-9 2 hrs  
9/10/15 - ND-IAAI ATC - 4 hrs  
9/19/12 - ND-IAAI ATC - interviewing 4 hrs  
9/19/12 - ND-IAAI ATC - report writing 4 hrs  
4/16/12 - CFI - Search & Seizure - 4 hrs  
10/16/11 - Armstrong - Identifying the source - 1.5 hrs  
5/24/10 - CFI - Physical Evidence - 1 hr  
12/13/09 - CFI - Documenting the Event - 4 hrs  
8/19/09 - ND-IAAI ATC - documenting the scene - 4 hrs  
8/19/09 - ND-IAAI ATC - report writing - 4 hrs  
8/19/09 - ND-IAAI ATC - evidence collection - 4 hrs  
8/19/09 - ND-IAAI ATC - interviewing - 4 hrs  
11/9/07 - CFI - Intro to Evidence - 4 hrs  
8/22/07 - ND-IAAI ATF - IAAI Courtroom Testimony - 20 hrs

#### **16. Electricity and Electrical Systems**

12/8/16 - ATFAOCCT Appliance Fires with Demo - 4 hrs  
12/7/16 - ATFAOCCT Electrical Aspects of Fire Scenes with Lab - 4 hrs  
9/10/15 - ND-IAAI ATC - 4 hrs  
6/14/15 - CFI - Residential Electrical - 4 hrs  
9/17/14 - ND-IAAI ATC - 4  
3/19/14 - CFI - Basic Electricity - 1 hr  
2/11/14 - Electric Car Fires - .2 hrs  
11/22/10 - CFI - Electrical Safety - 3 hrs  
9/29/10 - CFI - Arc Mapping - 4 hr