



**MICHAEL B. CRADDOCK**  
**SENIOR CONSULTANT**

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Mr. Michael Craddock is a Senior Consultant in the Houston, Texas office of Engineering Systems Inc. (ESI) and the Disaster and Incident Response Team leader. He specializes in fire and explosion investigations, safety and OSHA assessments, HAZMAT, large loss scene management, specialized testing, technical research, litigation support, and evidence documentation and recovery. Much of his work includes the investigations of fires and explosions, OSHA and safety issues within oil and gas, petrochemical, pipeline, refinery, commercial, industrial, and manufacturing facilities. He has been involved with safety issues regarding the installation, testing, and cleaning of tanks, pipelines, flares, barges, rigs, and vessels. He frequently assists in the structural documentation and damage assessment for issues involving natural disasters.

Mr. Craddock holds Bachelor of Science degrees in RPTS from Texas A&M University, College Station, Texas, and Fire Sciences from the University of Maryland University College, College Park, Maryland. He holds both an Associate of Applied Sciences degree in Occupational Safety and a Certificate in Occupational Safety from the San Juan College School of Energy, San Juan, New Mexico. He is a Certified Safety and Health Official (CSHO) in General Industry and Oil and Gas and Petrochemical through the Texas A&M Engineering Extension Service (TEEX) program. He was trained as an authorized OSHA 10 and 30 Instructor, and an H2S Instructor. He also holds an 80-hour Category E manager's certification in propane from the Texas Railroad Commission.

Mr. Craddock is a State of Texas Certified Fire Investigator, an International Association of Arson Investigators (IAAI) Certified Fire Investigator, a Certified Fire and Explosion Investigator, and a Certified Fire Investigator Instructor through The National Association of Fire Investigators (NAFI). He maintains a HAZWOPER (40 hour) certification, confined space entry, and fall protection competent person qualifications. Mr. Craddock has practical experience as a former fire fighter and Fire Prevention Officer with training as a HAZMAT (First Responder) through the technician level. He is also a certified instructor in CPR/AED and basic first aid as well as a Powered Industrial Truck (forklift) certified operator and instructor.

Prior to his employment with ESI, Michael Craddock was as an Engineering/Fire Technician for CH&A Corporation (a former forensic engineering company in Houston, Texas). There, he was involved in specialized testing, scene investigation, and evidence documentation and recovery. He has also held certifications as a Texas Mold Assessment Consultant, Texas Mold Assessment Technician, and a Certified Microbial Remediation Supervisor. Along with his degrees, numerous safety courses, certifications, teaching, and experiences, he also has a strong background in many areas of public information, technical research, and investigations.



## **Areas of Specialization**

Safety  
Fires and Explosions  
Propane and Natural Gas  
Large Loss Investigations  
Specialized Testing Preparation and Design/ Technical Research

## **Education**

B.S., RPTS, Texas A&M University, College Station, TX  
B.S., Fire Sciences, University of Maryland University College, College Park, MD  
A.A.S., Occupational Safety, San Juan College, San Juan, NM  
Certificate Occupational Safety, San Juan College, San Juan, NM  
CSHO General Industry - 300 plus training hours, TEEX, College Station, TX  
CSHO Oil Gas Petrochemical - TEEX, College Station, TX  
TX State Fire Commission 122 hour, Houston Community College, Houston, TX  
TX State CFI Certification, TX State Commission on Fire Protection, Austin, TX  
Certificate of Achievement, U.S Fire Administration

## **Certifications**

Fall Protection Competent Person  
IAAI Certified Fire Investigator  
NAFI Certified Fire and Explosion Investigator (CFEI)  
NAFI Certified Fire Investigator Instructor (CFII)  
Texas State Certified Fire Investigator (CFI)  
Certified HAZWOPER (40 hours)  
TEEX CSHO General Industry  
TEEX CSHO Oil & Gas and Petrochemical  
Confined Space Entry Qualified  
Hazmat – Awareness, Operations, Technician Levels  
Certified Trainer Basic Plus CPR, AED, and First Aid for Adults  
Certified Trainer Bloodborne Pathogens  
OTI- OSHA Authorized 10/30 Instructor  
TEEX Certified H2S Instructor  
Propane P80 Category E Management – 80-hour course  
Forklift/ Scissor Lift/ Self-Propelled Boom Lift Operator  
Forklift Trainer  
Notary



## **Professional Affiliations**

### **International Association of Arson Investigators (IAAI)**

Member

### **National Association of Fire Investigators (NAFI)**

Member

### **National Fire Protection Association (NFPA)**

Member

### **National Notary Association (NNA)**

Member

### **Texas State Fire Commission**

Member

### **International Code Council (ICC)**

Member

### **American Society of Safety Engineers (ASSE)**

Member

## **Positions Held**

### **Engineering Systems Inc., Houston, Texas**

Senior Consultant, 2012 – present

Staff Consultant, 1998 – 2012

### **Legal Research Associates, Humble, Texas**

Principal, 1997 – 1998

### **Copy-Right Documentation/ Litigation Services, Houston, Texas**

Litigation Support Associate, June 1995 to June 1997

### **CCA Corporation, Kingwood, Texas**

Manager, 1992 – 1996

### **CH&A Corporation, Kingwood, Texas**

Engineer and Fire Technician, 1987 – 1990

## **Continued Education**

122 Hr. Basic Fire & Arson Investigation- T.C.F.P. Approval No. 99021- Houston Community College

40 Hour Hazwoper Training 29CFR 1910.120(e)(3)(i)-Houston Area Contractor's Safety Council

7th Annual Chalk Bluff Vehicle Extrication School- (8hrs advanced) Waco, Texas

Abbotville Training Simulator Command Officer Training- Command School Inc.- Lake Jackson, Texas



Advanced Hazardous Waste Operations and Emergency Response Awareness-Target Safety  
Aerial Apparatus Familiarization- American LaFrance  
Aerial Lift Safety- Houston Area Contractor's Safety Council  
AIAQC- Mold Remediation in Schools and Commercial Buildings (EPA 402-K-01-001)  
AIAQC- The New Texas Mold Rules Pre-Licensing Review  
AIAQC- Current Happenings in Austin-TIAQA, the Texas Legislature, TDH, and You  
AIAQC- The Role of Insulation in Moisture Control  
Animals in Disaster, Awareness and Preparation- Emergency Management Institute  
ANSI Z359- Fall Protection- ANSI Standard Updates- Miller Fall Protection- John Eckel  
Asbestos 29 CFR 1910.1001 - Houston Area Contractor's Safety Council  
Atascocita Volunteer Fire Department- Probationary Fire School  
AVFD Basic First Aid and CPR  
Basic Concepts for WMD Incidents (Revised)- TEEX-Texas A&M University System/ DHS/SLGCP  
Basic Plus- Hazard Communication (HazCom) and Chemical Safety Personal Protective Equipment (PPE), Respiratory Protection, Hearing Conservation, Electrical Safety Related Work Practices for Non-Qualified Workers, Elevated Work, Process Safety Management (PSM), Excavation, Trenching & Shoring, Confined Space, Job Hazard Analysis (JHA), General Rules & Emergency Response- Association of Reciprocal Safety Councils, Inc. 2006-2021  
Basic Plus Refresher- Association of Reciprocal Safety Councils, Inc., Houston Area Contractor's Safety Council 2006-2021  
Blood-Borne Pathogens Safety- 29 CFR 1910.1030- Target Safety  
Certified Forklift Operator- Forklift Tech  
Certified Microbial Remediation Supervisor Training Course- American IAQ Council  
CFI Trainer Course- Evidence Examination: What Happens at the Lab- IAAI  
CFI Trainer Course- Introduction to Evidence- IAAI  
CFI Trainer Course- Understanding Fire Through Candle Experiments- IAAI  
CFI Trainer Course-Physical Evidence at the Fire Scene- IAAI  
CFI Trainer Course- Critical Thinking Solves Cases- IAAI  
CFI Trainer Course- Documenting the Event- IAAI  
CFI Trainer Course- Arc Mapping Basics-IAAI  
CFI Trainer Course-Fire and Explosion Investigations: Utilizing NFPA 1033 and 921  
CFI Trainer Course-Digital Photography and the Fire Investigator-IAAI  
CFI Trainer Course- Fundamentals of Building Construction-IAAI



CFI Trainer Course- Charleston Sofa Super Store Fire- IAAI  
CFI Trainer Course- NFPA 1033 and Your Career-IAAI  
CFI Trainer Course- Writing the Initial Origin and Cause Report-IAAI  
CFI Trainer Course- Electrical Safety-IAAI  
CFI Trainer Course- Basic Electricity-IAAI  
Chemistry and Thermal Events – ESi Technical Presentation  
Circuit Board Potential Ignition – ESi Technical Presentation  
Combustible & Flammable Liquids- 29 CFR 1910.106- Target Safety  
Compressed Gas Safety- 29 CFR 1910.101- Target Safety  
Computational Analysis – ESi Technical Presentation  
Confined Space Entry- 29 CFR 1910.146- Target Safety  
Confined Space Ventilation, Entry, and Rescue 29CFR 1910.146- Health and Safety Technology  
Contacts and Terminal – ESi Technical Presentation  
Current States of OSAC and NFPA 921, 1033, 1321 – ESi Technical Presentation  
DOT General Awareness of Hazardous Materials, Eduwhere  
DOT Hazardous Materials Shipping for Environmental Professionals, Eduwhere  
DOT Hazardous Materials Transportation, Eduwhere  
DOT Hazardous Waste Manifest, Eduwhere  
DRI Fire and Casualty Seminar- Phoenix, AZ  
Elevated Work- Houston Area Contractor's Safety Council  
Emergency Management Concerns for the First Responder in Terrorism and Disasters- TEEX-Texas  
A&M University System/ DHS/SLGCP  
Excavation Awareness- Houston Area Contractor's Safety Council  
Fall Protection-Scaffold User-Confined Space-Lockout/Tagout  
Finite Element Analysis- Engineering Systems Inc. John A. Wilkinson, P.E.  
Fire Investigation Testing- Engineering Systems Inc.  
Fire Investigator- Texas Commission on Fire Protection  
Fire Scene Sketching (3hrs.)- Engineering Systems Inc.  
Hazard Communication (HazCom): Globally Harmonized System (GHS) Safety Data Sheets, JJ Keller  
Hazard Communication (HazCom): Globally Harmonized System (GHS) Container Labels, JJ Keller  
Hazardous Materials Awareness- 29CFR 1910.120(q)- Harris County Fire & Emergency Services  
Department Hazardous Materials Response Team



Hazardous Materials First Responder Operations- Harris County Fire & Emergency Services  
Department Hazardous Materials Response Team- Texas Emergency Services Training  
Institute – Texas Division of Emergency Management

Hazardous Materials Technician Upgrade- Harris County Fire & Emergency Services Department  
Hazardous Materials Response Team- Texas Emergency Services Training Institute – Texas  
Division of Emergency Management

Hazardous Waste Management and Shipping for Environmental Professionals, Eduwhere

HAZWOPER – Exposure and Monitoring, JJ Keller

HAZWOPER – Chemical Fundamentals, JJ Keller

HAZWOPER – Hazardous Substance Recognition & Identification, JJ Keller

HAZWOPER – Respiratory Protection, JJ Keller,

HAZWOPER – Electrical Safety & Lockout/Tagout, JJ Keller

Hazmat – Placarding, JJ Keller

Hazmat – Marking, JJ Keller

Honeywell Safety Institute- Miller Fall Protection Competent Person

IATA Dangerous Goods, Eduwhere

ICAC Seminar 2004- Insurance Council for Arson Control Classes- Ethics, Stove Fires, Selection of  
other experts, Daubert Challenge

ICAC Seminar 2003 Insurance Council for Arson Control Classes- Investigative Interviewing, Precision  
Claim Handling, Legal Issues Affecting Fire Investigators, 921 for Insurance Personnel, Vehicle  
Fire Investigations

IMDG – International Maritime Dangerous Goods Shipping, Eduwhere

Industrial Loss Prevention – ESi Technical Presentation

Internet-EMS I: Basic Concept for WMD Incidents – (8hrs) TEEX-Texas A&M University System

Ladder Safety- Houston Area Contractor’s Safety Council

Landing Zone Coordinator for Life Flight- Memorial Herman Hospital

Lead Awareness- 29 CFR 1910.1025(L)(1)- Target Safety

Leadership Training - Atascocita Volunteer Fire Department

Lightning 101- Global Atmospherics Inc

LP Gas Sample Collection – ESi Technical Presentation

MEWP Trainor and Evaluator Program

Mold Assessment Consultant- Texas Department of State Health Services

Mold Assessment Technician- Texas Department of State Health Services



MSHA – Elements of Electrical Hazards  
MSHA – Chemical Hazards Overview  
MSHA – Administrative Line of Authority  
MSHA – Accident Prevention  
N.F.A. Instructional Techniques (16hrs.) -TEEX- Harris County Fire Fighters Association 29th Annual  
Field Day- College Station, Texas- NFA- Certificate Awarded  
NFPA CPR Academic- Target Safety  
NFPA Hazard Communications-Target Safety  
NFPA Haz-Mat Spill Prevention & Control-Target Safety  
NFPA Haz-mat Transportation- 29 CFR 1926.65(e) & DOT HM 181- Target Safety  
NFPA Materials Handling, Storage, Use, & Disposal- Target Safety  
NFPA Respiratory Protection- Target Safety  
Principles of Electric Fires- Central Texas Fire Investigators (16hrs.)  
Propane Technology Course-P80 Category E Management –Level Course- (80 hrs.) Railroad  
Commission of Texas  
Public Works: WMD Basic Concepts –(4hrs) TEEX-Texas A&M University System/ DHS/ODP  
Pump Operations Basic Section D (16hrs)-TEEX- Harris County Fire Fighters Association 27th Annual  
Field Day- College Station, Texas  
RCRA and DOT Refresher, Eduwhere  
Residential Firefighting Section A (8hrs.), Industrial Fire Fighting Section B (8 hrs.)- TEEX- Harris  
County Fire Fighters Association 26th Annual Field Day- College Station, Texas- April 2001  
Residential Inspection- Engineering Systems Inc. Dan Wojnowski, P.E. / Nar Sripadanna, P.E.  
Respirator Training- Houston Area Contractor’s Safety Council 2000-2021  
Scaffold User- Houston Area Contractor’s Safety Council  
Section H, Managing Company Tactical Operations (16hrs.) -TEEX- Harris County Fire Fighters  
Association 28th Annual Field Day- College Station, Texas NFA- Certificate Awarded  
Sexual Harassment- Target Safety  
Smoke Divers- Advanced SCBA School- SCBA donning and quality, maintenance and cleaning, air  
consumption, emergency breathing procedures, room orientation, restricted operations, bottle  
change in a hazardous atmosphere, rescue, training mazes and obstacle course.  
Shipping Batteries (IATA and DOT), Eduwhere  
Shipping Infectious Substances (IATA and DOT), Eduwhere  
Special Events Contingency Planning for Public Safety Agencies- Emergency Management Institute



Supplied Air Training- Houston Area Contractor's Safety Council 2000-2021  
TEEX Hydrogen Sulfide (H2S) Instructor Development  
TEEX Introduction to Accident Investigation 15 hours  
TEEX Environmental Regulations for Oil and Gas Exploration and Production 31hours  
TEEX Introduction to Oil and Gas 24 hours  
TEEX Hazardous Materials 31 hours  
TEEX OSHS for General Industry 31 hours  
TEEX Cranes and Material Handling 31 hours  
TEEX Permit Required Confined Space Entry 31 hours  
TEEX Trainer Course in OSHS for General Industry 31 hours  
TEEX OSHA Guide to Industrial Hygiene 31 hours  
TEEX Principles of Ergonomics 23 hours  
TEEX Machinery and Machine Guarding 31 hours  
TEEX Medic First Aid and CPR Instructor  
Terrorism Awareness for Emergency Responders Course -Texas A&M University System National  
Emergency Response & Rescue Training Center/ U.S. Department of Justice  
TracPipe Training Program- Omega Flex  
Trenching & Shoring- 29 CFR 1926.650-653- Target Safety  
Trenching Safety/Shoring- Houston Area Contractor's Safety Council  
Trying the Black Mold Case- Texas Bar CLE  
UTA-OSHA #3115- Fall Protection 22 hours  
UTA-OSHA #510 Occupational Safety and Health Standards for the Construction Industry- 30 hours  
Wind Loads- Engineering Systems Inc.  
WMD Terrorism Awareness for Emergency Responders (Internet) –(8hrs) TEEX  
Workplace Stress- Target Safety  
Workplace Violence- Target Safety



## **Presentations/Courses**

"Basics From Falls of Heights" – presented at the Austin Claims Association Seminar, Austin, Texas, May 2023.

"Fall Protection for Buildings – Usage, Responsibilities, and Risk", presented at The Texas Association of Defense Counsel Conference, Memphis, TN, September 2021.

"Forensic Engineering as it Relates to Differing Expert Opinions and Accidental Falls", presented at Houston Claims Association (HCA) June CLE/CE Seminar, Houston, TX, June 2021.

"Negligence and Premise Liability: A Safety Perspective", presented at ESi/Houston Claims Association (HCA) CLE/CE Educational Afternoon, Conroe, TX, November 2019.

"New Technologies in Incident Investigation", co-presented at Natural Gas Claims and Litigation Association (NGCLA) Seminar, Houston, TX, April 2015.

Airborne/Bloodborne Pathogens

Arson and Fire Investigation

Confined Space Entry and Rescue

CPR/AED/Basic First Aid

Fall Protection

Fire Burn Injuries

Fire Control

Fire Department & Vehicular Accident Operations

Fire Dynamics - The Basics

Fire & Explosion Incidents - Big to Small

Fire Extinguishers

Fire Prevention Education

Fire Testing

H2S

Human Behavior Patterns in Fire Situation

Mold/Fungi Indoor Environments

PIT (forklift)

Propane/Natural Gas

Saltwater Disposal Fires

Scene Safety Issues