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KEVIN P. DEPARTHY, P.E., CFEI

SENIOR CONSULTANT

kpdeparthy@engsys.com

Kevin Departhy is a senior consultant for ESi. Mr. Departhy holds two Bachelor's degrees, one in Mechanical Engineering with a concentration in energy systems, and the other in Physics. Mr. Departhy specializes in building sciences with particular expertise investigating failures of structures, HVAC and plumbing systems, and the building envelope. He conducts investigations into wind and hail events, tree impacts, water losses, mold and moisture, lightning strikes, and other types of property claims. Mr. Departhy's professional experience also includes forensic evaluations of structures and equipment that were subject to fire.

Mr. Departhy has EPC (engineering procurement construction) experience designing HVAC and power generation piping systems for nuclear power plants. He held the position of supervisor of a site engineering team supporting the construction of two nuclear power generation plants. During his time in the nuclear industry, he performed evaluations and root cause analyses of defective components, installations, and processes that could have posed substantial safety hazards and produced reports in accordance with federal regulations.

Mr. Departhy has further experience as an estimator and project manager for mechanical projects including installation of HVAC and plumbing systems for projects ranging from residential to heavy industrial. He performed civil/site design, including design of sanitary and storm sewer systems. In his earlier years, Mr. Departhy performed field work as a plumbing contractor and garage door installer.

Areas of Specialization

Construction Defect
Standard of Care
Construction Project Management
Design Analysis
HVAC/Refrigeration
Plumbing
Steam Systems
Fuel Gas Systems and Appliances
Building Envelope
Roofing Systems
Fire Investigation
Commercial Kitchen Hood Fire Investigation
Residential Structures
Storm Damage Evaluation
Underground Directional Boring
Pipelines
Nuclear Power Plant Engineering Procurement Construction (EPC)

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Education

B.S., Physics, University of North Carolina Charlotte, 2020
B.S., Mechanical Engineering – concentration in energy systems, minor in physics, University of North Carolina Charlotte, 2012
A.S., Engineering, Community College of Rhode Island, 2005

Licensed Professional Engineer (P.E.)

State of North Carolina	License No. 045596
State of South Carolina	License No. 35223
State of Virginia	License No. 402059036
State of Georgia	License No. PE042954
State of Tennessee	License No. 122411
State of Florida	License No. 84711
State of Rhode Island	License No. 14343
State of Maryland	License No. 58124
State of New York	License No. 105392
State of West Virginia	License No. 025400
State of Illinois	License No. 062075159
State of Indiana	License No. PE12400137

Professional Affiliations/Honors

Professional Affiliations:

American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE)
American Society of Plumbing Engineers (ASPE)
American Society of Gas Engineers (ASGE)
National Association of Fire Investigators (NAFI)
American Society of Civil Engineers (ASCE)

Honors:

Westinghouse Technical Leader Development Program 2016
Chicago Bridge and Iron (CBI) Emerging Leaders Program 2015
Eagle Scout, 2000

Positions Held

Engineering Systems Inc., Charlotte, North Carolina

Senior Consultant, 2020 – Present
Team Leader, 2023

U.S. Forensic LLC, Charlotte, North Carolina

Senior Engineer, 2018 - 2020

SEA, Ltd., Charlotte, North Carolina

Project Engineer, 2017 – 2018



**Westinghouse Electric Company (formerly Chicago Bridge and Iron, formerly Shaw Power),
Multiple Locations**

Systems Engineer and Cyber Security Assessor, Charlotte, North Carolina, 2016 - 2017
Site Engineering Supervisor, Vogtle 3&4 Construction Site, Waynesboro, Georgia 2014 - 2016
Site Engineer and 10CFR21 Coordinator, Vogtle 3&4 Construction Site, Waynesboro, Georgia
2013 -2014
Engineer Intern, Charlotte, North Carolina 2012 - 2013

Scope Services Mechanical Contractor, Cornelius, North Carolina

Estimator/Project Manager, 2008 - 2010

Latham-Walters Engineering, Huntersville, North Carolina

Engineer Technician, 2006 – 2008

A-1 Plumbing, Pawtucket, Rhode Island

Plumber's Assistant 2001 - 2002

Freddy's Doors, North Attleboro, Massachusetts

Garage Door Technician 2000 – 2001

Training and Certifications

Training

"HVAC Design: Level I – Essentials" ASHRAE, Atlanta, Georgia, 2014.

"Investigation of Gas and Electric Appliance Fires" Fire Findings, Benton Harbor, Michigan,
October 2017.

"How to Use the Bosch CDR Tool," Crash Academy, May 2018.

"Residential Roof Inspector," HAAG, May 2018.

HVAC technician training, All American Technician Training Academy, June 2018.

EPA 608 Certification – Universal, June 2018.

"Electrical System Design for the Non-Electrical Engineer", University of Wisconsin College of
Engineering and Engineering and Profession Development, April 2019.

Mold and the Building Enclosure, EMSL and Wynn L. White Consulting Engineers, 2019.

OSHA 30-Yr Outreach Training for the Construction Industry, University of South Florida, June 2020.

IBBEC Roof Science and Technology, 2021.

IAAI Fundamentals of Fire Investigation, 2021.

IAAI Commercial Kitchen Hood System Inspection and Fire Investigation, 2023.

Huntersville 101 – Local Government services and function course (2024)

Certifications

Certified Fire and Explosion Investigator (CFEI) (2024)

Permit Required and Non-Permit Required Confined Space (2023)



Certified Gruvlock Installer (2021)

EPA 608 Certification for refrigerant handling – Universal (2018)

OSHA 30 Hour Outreach for the Construction Industry (2020)

Publications/Presentations

Presentations:

HVAC Cools Your House and a Nuclear Power Plant, 2024

North Carolina Association of Defense Attorneys, 2023
When Wood Building Products Fail

Georgia Fire Investigators Association, 2022
Affects of Lightning on Mechanical Systems, Structures, and Equipment

Annual Institute for Building Officials, 2021
Residential HVAC Systems – Code Requirements, Installations Practices, Deficiencies, and Failures

Continuing Education for Insurance Adjustors, 2016-2017
Residential Plumbing Systems
Drone Technology

Strategic Task Groups and Committees

Board of Trustees Vice President – Christian Montessori School of Lake Norman, 2024

International Mechanical Code Development Committee, 2024-2027

International Fuel Gas Code Development Committee, 2021-2024

American Nuclear Society, Local Chapter Committee Member 2015

North American Young Generation Nuclear, Chapter President 2014