



JOHN R. PUSKAR, PE



Curriculum Vitae

**Winner
ASME National Award
Barnett-Uzgiris Product Safety**

PROFESSIONAL EXPERIENCE

2012 - Present: Prescient Technical Services LLC/Puskar Publishing LLC.
www.PrescientTS.com

Provider of strategic engineering and risk management services. Authored book, January 2014, published by Wiley & Sons.

1984-2012: CEC Consultants, Inc. & Combustion Safety Inc.
Founder/Principal/President

Started CEC Consultants, Inc. in 1984 to provide engineering consulting services related to boilers and process utilities systems. Started Combustion Safety Inc., Combustion Mechanical, and CEC Combustion Services Group in 1999 to meet the growing demand for safety related inspection and testing services related to fuel systems and combustion equipment. Staff of 43 professionals served more than 250 clients, in 21 different countries. Sold the company in 2011 to Eclipse Combustion. Company is now owned by Honeywell and known as Honeywell Combustion Services.

1981-1984: BP Oil (Previously Standard Oil of Ohio)
Senior Energy Systems Engineer

Responsible for the design of utility systems and energy conservation projects for refineries and chemical plants throughout North America.

STATE LICENSED PROFESSIONAL ENGINEER (P.E.) REGISTRATIONS (PAST & PRESENT)

- Ohio
- Connecticut
- Illinois
- Indiana
- Michigan
- Mississippi
- North Carolina
- Pennsylvania

EDUCATION

1984: MBA - Master of Business Administration
Case Western Reserve University, Weatherhead School of Management

1981: BEME - Bachelor of Engineering (Mechanical)
Youngstown State University; Youngstown, Ohio

- Sigma Phi Epsilon Social Fraternity

MAJOR ROOT CAUSE INCIDENTS & FORENSIC CASES INVOLVING GAS PIPING/COMBUSTION EQUIPMENT

Mr. Puskar has conducted root cause analysis for many significant explosions and fires over the past 39 years. These incidents involved gas piping systems, industrial ovens, boilers, bakery ovens, and thermal oxidizers. He has played a lead role in the investigation/aftermath of several large nationally significant projects. In Mr. Puskar's book he includes stories about 50 real life incidents where he was directly involved in mitigating the results or conducting investigations.

Kleen Energy: Middletown, Connecticut

Attorney: Robert Reardon, www.reardonlaw.com

Mr. Reardon has been practicing law for over 40 years. He is one of the northeast's super lawyers. One of his most notable cases is the Rhode Island Station night club fire where he represented the plaintiffs.

Incident: A February 2010 power plant gas line explosion killed 6 and injured dozens. Mr. Puskar is on the plaintiff's litigation team. Mr. Puskar has provided valuable input regarding piping codes, observations related to possible causes and origins, and insight into possible negligent acts. This \$900 million-dollar power plant was under construction at the time and near completion.



ConAgra Foods: Garner, North Carolina, (Post Catastrophic Explosion Support)

Working for Owner

Incident: A June 2009, explosion incident left 4 dead and dozens injured. It occurred when a contractor was installing and commissioning a new hot water heater. The contractor believed he could not get sufficient gas to the burner for proper light off. Natural gas was released into a mechanical room, exploding and leveling large parts of the facility. This incident cost ConAgra over \$300 million.

Mr. Puskar lead a project for making the plants gas piping in the facility once again safe and ready for use, including bringing it into compliance with all relevant safety codes. He then developed and managed a project for inspecting all ConAgra sites and completing combustion equipment inspections and identifying corrective actions.



Ford Motor Company: Rouge River site, (Dearborn, Michigan)

Working for Owner

Incident: A February 1, 1999, boiler explosion caused 6 deaths and dozens of injuries, when service was to be performed on a large boiler at the site. The gas piping systems were being purged to make the boiler safe for entry. It is believed that gas was sent to the boiler firebox by mistake causing the \$1.3 billion incident.

Mr. Puskar lead a project to develop and implement an OSHA-mandated 3rd party inspection and safety testing program for all Ford boiler sites in North America. These gas piping and combustion equipment programs are still implemented annually by Ford 19 years after the incident.



US Steel: Corporate Gas Hazards Program, (Pittsburgh, Pa.)

Working for Owner

Incident: In 2010 an explosion occurred at the company's Clairton Coke Facility. There were no deaths or injuries, but the company suffered an extended outage of this key asset and lost production. Mr. Puskar lead a project to create a corporate gas hazards safety program to be used worldwide by US Steel facilities. This program has now been in place for 8 years. Mr. Puskar developed purge plans and training programs, lead training events for hundreds of staff, and made equipment specification recommendations to minimize risks.



Awarded US Patent 4074022A Ambient Air Assisted Cooling

Assigned to Standard Oil (Ohio), developed a patented approach to provide energy savings to Ammonia plants. Mr. Puskar's work with Standard Oil included assignments to make Ammonia plants operated by the company more energy efficient.

25 ADDITIONAL REPRESENTATIVE ROOT CAUSE INCIDENTS & FORENSIC CASES INVOLVING GAS PIPING/COMBUSTION EQUIPMENT OF MORE THAN 50 COMPLETED

Type of Facility	State	Event	Client	Scope
Hospital	Illinois	Oil fired boiler explosion	Owner	Investigation
Chemical Manufacturer	Pennsylvania	Gas fired boiler explosion	Owner	Investigation
Multi-family Dwelling	Maryland	CO fatality and child injured	Plaintiff's Atty.	Testimony
City of Struthers WWTP	Ohio	Methane explosion, 2 fatalities	Plaintiff's Atty.	Consultant
Steel Plant	Pennsylvania	Curing oven fire	Owner	Investigation
Loy Lange Box Incident	Missouri	Boiler steam explosion, 4 fatalities and 3 injuries, \$47MM settlement	Plaintiff's Atty.	Consultant
Food Processing Plant	Minnesota	Food processing plant oven fire	Insurer	Consultant
Food Processing Plant	Indiana	Processing furnace fire	Owner	Investigation
Major Public University	California	Gas boiler explosion	Owner	Investigation
Steel Plant	Texas	Heat treat furnace explosion, 1 fatality	Owner	Investigation
Auto Manufacturer	Michigan	Gas leak, office building explosion	Owner	Investigation
Auto Manufacturer	Ohio	Gas heater fire	Owner	Investigation
Major NG Utility	New York	Gas process heater control failure	Owner	Investigation
Chemical Manufacturer	Texas	Gas boiler explosion	Owner	Investigation
Public School System	Texas	CO incident, over 300 people	Insurer	Consultant
Food Processing Plant	Minnesota	Gas boiler explosion	Owner	Investigation
Manufacturing Plant	Indiana	Heat treat oven explosion	Owner	Investigation
Auto Dealer	Minnesota	Waste oil boiler smoke incident	Insurer	Consultant
Cook County	Illinois	Oil boiler explosion	Owner	Investigation
Church	Ohio	Gas boiler explosion	Insurer	Consultant
Auto Manufacturer	Ohio	Gas boiler explosion	Owner	Investigation
Zinc Refiner	Pennsylvania	Process furnace explosion, 2 fatalities	OSHA	Consultant
Steel Plant	Pennsylvania	Gas line leak explosion	Owner	Investigation
Aluminum Processor	Washington	Refractory curing oven explosion	Owner	Investigation
Major Refinery	West Coast US	Explosion & Fire	Labor Arbitration	Consultant
Major Refinery	East Coast US	Explosion & Fire	OSHA	Expert
Major NG Utility	Ohio	Gas Main Purging Accident	Defense Atty	Expert
Major NG Utility	North Carolina	Gas line leak explosion, 1 fatality	Plaintiff's Atty.	Consultant
Major NG Utility	North Carolina	Gas line leak explosion, 1 fatality	Plaintiff's Atty.	Consultant

PROFESSIONAL SOCIETY MEMBERSHIP

ASSOCIATION	# OF YEARS
AEE: Association of Energy Engineers	35
AFE: Association for Facilities Engineering (Past President)	6
ASHRAE: American Society of Heating, Refrigeration and Air Conditioning Engineers	15
ASME: American Society of Mechanical Engineers (Past President)	40
ASPE: American Society of Plumbing Engineers	10
CTSC: Cleveland Technical Societies Council	10
NFPA: National Fire Protection Association	30
NSPE: National Society of Plumbing Engineers	3
ASSP, American Society of Safety Professionals	20
AIChE, American Institute of Chemical Engineers	5

PROFESSIONAL CERTIFICATIONS/COMMITTEES

- Member API 54, Recommended Practice for Occupational Safety for Oil and Gas Well Drilling Operations.
- Member NFPA 56, Standard for Fire and Explosion Prevention During Purging and Cleaning of Flammable Gas Piping Systems
- Member NFPA 54, National Fuel Gas Code
- Member NFPA 86, Safety standards for industrial ovens and furnaces
- Member NFPA 85, Large boiler combustion hazards
- Member NFPA 56, Preventing Flammable Gas Piping Explosions & Fires
- Member NFPA 59A, Standard for the Production, Storage, and Handling of LNG
- Member NFPA 820, Preventing Wastewater Treatment Plant Fires & Explosions
- Member, ASME CSD-1 Committee, (Safety standards for automatically fired boilers)
- Certified Cogeneration Professional, AEE
- Certified Energy Manager, AEE
- Certified Industrial Energy Practitioner, AEE
- Certified Plumbing Engineer: American Institute of Plumbing Engineers
- Certified Master Plumber: City of Cleveland - Cleveland, Ohio
- Certified Underground Storage Tank (UST) Installer: State of Ohio, Fire Marshal's Office
- Certified Energy Auditor (TA): State of Ohio, NECPA Title III
- Certified Infrared Thermographer: Infraspection Institute - Burlington, Vermont
- Ohio Contractors Licenses: Plumbing, Boiler, Electrical, Refrigeration/HVAC
- Ohio Fire Protection Certifications: Sprinkler & Fire Extinguisher Installation & Maintenance
- Ohio Boiler Operators License

Presentations and Training Conducted (Gas Hazards, Combustion Equipment Safety)

Mr. Puskar has presented at more than 50 conferences throughout the United States, including at the Mary K. O'Connor process safety symposium, OSHA Oil and Gas Conference, and numerous NFPA, AEE, AIPE, AFE, ASSE, and ASME events. Mr. Puskar has trained many thousands of managers, safety professionals, and technicians over the past 35 years in private corporate events and at public meetings. Mr. Puskar was a frequently invited speaker to dozens of fortune 100 training events and professional society meetings.

Books:

Published by Wiley & Sons

Fuels and Combustion Systems Safety, "What you don't know can KILL you!", Wiley & Sons 2014, book has entered a second printing and is now being translated by the publisher into Chinese.

Published by the American Society of Safety Professionals, ASSP

Safety Professionals Handbook, Chapter 43. Fired Equipment and Natural gas Piping



AMERICAN SOCIETY OF
SAFETY PROFESSIONALS

HONORS & AWARDS

1999 "US EPA "Energy Star National Ally of the Year"

Cleveland Enterprise Magazine named CEC Consultants innovator of the year.

1998 "Edison Innovation Award."

Cleveland Enterprise Magazine named CEC Consultants innovator of the year.

1992, 1993, 1994, 2000, 2001, 2003, 2004 "Weatherhead 100 Upstart Outstanding Growth Company – Providing Energy Services"

The Weatherhead School of Management/Enterprise Development Corporation award seeks to recognize the top 20 growth firms in Northeast Ohio.

"40 Under 40" Publication: Crain's Cleveland Business

Crain's Cleveland Business magazine named John R. Puskar to their 1992 "40 Under 40" list. The magazine's list recognizes impressive talent from numerous fields as well as those individuals who are successful professionals, entrepreneurs, and civic leaders. These 40 people, all under the age of 40, are viewed as among Greater Cleveland's rising stars.

"1993 Technical Achievement Award": Cleveland Technical Societies Council

John R. Puskar was named as the "1993 Technical Achievement Award" recipient by The Cleveland Technical Societies Council, demonstrating outstanding performance, creative ability, and technical competence in the engineering profession and for "giving back" to the community.

"1993 Young Engineer Of The Year": Cleveland Engineering Society

The Cleveland Engineering Society, Ohio's largest professional engineering society, honored John R. Puskar as the "1993 Young Engineer of the Year: for his engineering achievements and contributions to the Northeast Ohio Community.

"1992 Energy Engineer of the Year": Association of Energy Engineers (AEE)

John R. Puskar, P.E., was named as "1992 Energy Engineer of the Year" by the 400-member Northeast Ohio Association of Energy Engineers (AEE). Mr. Puskar's firm has implemented a number of innovative energy cost-savings projects for clients such as Ford Motor Company to earn this award.

ASHRAE Energy Award: American Society of Heating, Refrigeration, and Air Conditioning Engineers

The American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), Cleveland Chapter, awarded John R. Puskar First Place in their annual energy awards

competition. The award was for an innovative retrofit project by Mr. Puskar at an existing facility owned by BP Oil Company.

ASME, American Society of Mechanical Engineers, 2014 National Uzgiris-Barnett Medal

National award presented at the annual conference for product safety related to Mr. Puskar's career in industrial energy-related safety work.



AEE, Association of Energy Engineers, 2019 "Legend in Energy"

Given in recognition of accomplishments within the field of energy conservation and renewable energy over a career.

AEE, Association of Energy Engineers, 2022 Named "Fellow"

Given in recognition of making significant accomplishments in energy management, energy efficiency, and alternative energy.

**25 REPRESENTATIVE TECHNICAL PAPERS AND
CONFERENCE PRESENTATIONS
FROM MORE THAN 100 OVER 40 YEARS.**

Title	Publication/Conference
Boiler Safety on the Front Burner	Engineered Systems
Don't Add Fuel to the Fire	Process Heating
Is Your Oven Telling You It's Unsafe?	Process Heating
Process Burner & Combustion System Hazards:10 Issues that Save Lives	Journal of Hazardous Materials
Boiler & Combustion Safety, What You Don't Know Can Kill You!	Reliable Plant Magazine
Before and After the Inspection, (The Rest of the Story)	National Board of Boiler & Pressure Vessel Inspectors Journal
Making Sure Steam Piping is Safe, (10 Simple Things to Look For)	Pharmaceutical Processing Magazine
Boiler Safety Intuition	Refrigeration Service Engineers Society Journal
Boiler & Combustion System Safety,15 Minutes to Save Your Life	ASSE, (American Society of Safety Engineers), Conference Paper
Ten Combustion System Hazards that can cost you your life	ASSE, (American Society of Safety Engineers), Conference Paper
Natural Gas Piping and Purging, Safe Work Practices	MASHA 2011, Mid Atlantic Safety & Health Conference, Conference Paper
New Gas Piping Rules Will Change the Way You do Business	Industrial Heating
Ten (10) Process Equipment Burner & Combustion System Hazards That Can Cost You Your Life!	Mary K. O'Connor Process Safety Symposium Conference Paper, College Station, Texas
Avoid Natural Gas Piping Hazards	AIChE (American Institute of Chemical Engineers), Journal
Combustion Equipment Losses-12 Hard lessons Learned from the Blackout	Plant Engineering Magazine
9 Points to Safe Steam Piping	Control Engineering Journal, (John Puskar and Mark Rudek)
Ten Combustion System Related Hazards & How to Avoid Them	Plant Services Magazine, (John Puskar & Bryan Baesel)
Fuel Systems Risks in Developing Countries	Risk Management Magazine, RIMS
Workplace Emergency Planning Lockout Identification of Natural gas Lines	Industrial Hygiene News
Natural Gas Piping: It's Time for Better Risk Control	Power Magazine
Boiler & Combustion Safety, what you don't know can kill you!	Oil Mill gazetteer
Blackouts Raise Big Combustion Safety Issues	Power Magazine
Natural Gas Safety, It's Time for Better Risk Control	ASOPE Journal
Proven Practices for Minimizing Risks from Gas Hazards	6th China Process Safety Symposium
Too Many Flammable Gas Explosions and Fires, Upstream/Midstream, NFPA 56 is an Answer	OSHA, Oil & Gas Safety & Health Conference