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KENNETH L. MALONEY, Ph.D.

BS Chemistry, Wilkes College, 67  
Ph.D. Fuel Science, Pennsylvania State University, 71

**Kenneth L. Maloney, Ph.D., INC.**--President. Dr. Maloney has a combination of 40 years academic, research and applied experience in fuels combustion and combustion equipment problem solving for industrial clients. Dr. Maloney brings to his consulting activities a firm underpinning of the fundamentals of the physics and chemistry of combustion. His applied experience has been gained by dealing with and solving practical problems for utility and industrial clients. He is a recognized expert in the areas of fossil fuel combustion, combustion modification emission reduction, air pollution from combustion sources, fires, explosions, spontaneous combustion, turbine failures, diesel and gasoline engine operations and emissions, coal pulverizer operations and failures, and air heaters operation and failures.

**PROFESSIONAL EXPERIENCE/POSITIONS HELD:**

President, Kenneth L. Maloney, Ph.D., Inc.  
President, Calpenn Associates, Inc.  
President, Combustion Services, Inc.  
Westmar University, Trustee  
Vice President, Calpenn Associates, Inc.  
Manager, Product Development, KVB, Inc.  
Senior Scientist, Ultrasystems, Inc.  
Postdoctoral Research/Teaching Fellow, Drexel University  
Postdoctoral Research Fellow, Guggenheim Laboratory, Princeton University

**CONSULTANT:**

The following companies have retained Dr. Maloney:

- International Paper Company, Lock Haven, PA-Boiler Controls
- PittCarbon, Niles, Ohio-Collection, Transport and Storage of Carbon Ash
- Goodyear Tire and Rubber Company-NOx Reduction on PC Boilers
- Cleveland Electric Illuminating - Coal Pulverizer fires and explosions
- Getty Coal Company - Spontaneous Heating of Export Coal in LA Harbor
- Weirton Steel Company-BFG, COG, OIL, PC, and Gas Burner/Boiler Problems
- Asia Cement Company - Spontaneous Heating of Coal on Board M/V Panamax Nova
- US Steel Corporation - Re-Burnering Three boilers at ET Works No. 1 Power House
- Arkansas Power and Light Company - Coal Switching for ISES and WBSES Power Plants
- Arkansas Power and Light Company - Coal Bid Evaluation for ISES Lignite Use
- Consolidated Edison Company, NY - Evaluation of TVIT system at East River, Astoria, and Ravenswood Plants
- West Newport Oil Company - H2S/SO2 Scrubbing system for IC Engines

-Jet Propulsion Laboratory - Hydrogen fueled Diesel Engine

INVESTIGATOR:

Dr. Maloney has been the principal investigator on a number of research programs sponsored by the federal government and industry organizations. Some are:

- Electric Power Research Institute-Pulverizer Failure Cause Analysis
- Electric Power Research Institute-Air Heater Failure Cause Analysis
- Electric Power Research Institute-POM Emissions from Utility Boilers
- United States Environmental Protection Agency-Western Coal Use in Boilers
- United States Environmental Protection Agency-FGR for Stoker Boilers
- United States Department of Energy-Diesel Engine Heat Recovery
- United States Department of Energy-Diesel Engine Low NOx Emission Operation
- OESI (Ormsa) - Isopentane Driven Turbine Failure and Fire
- Cigna Insurance Company - LADWP/IPP Burner Failure on Unit #1
- Aetna Insurance Company - Trigon Energy Natural Gas Driven Turbine Failure
- Chubb Insurance Company - Ammonia Cooling System Failure at Galetta Bros. Co.
- Maxon Young - Garbage Truck Fire owned by the City of Pasadena, CA
- Bank of America - North Branch, WVA, GOB Fired Power Plant Silo Failures
- Electric Power Research Institute - NOx Reduction with Ammonia and Urea
- Electric Power Research Institute/Babcock and Wilcox - Low NOx Two Stage Coal Burner
- Electric Power Research Institute - N2O Measurement in Coal Flue Gas
- Electric Power Research Institute - Ammonia Slip from Catalytic dNOx Systems
- Cigna Insurance Company-1997 Storm Damage to El Dorado Hydro Plant El Dorado, CA
- Allstate Insurance Company - Tear Gas Residue Sampling in a Mobile Home
- State Farm Insurance Company-Formaldehyde and Asbestos Sampling in a Mobile Home

EXPERT WITNESS:

Dr. Maloney has been retained many times to provide litigation support for both plaintiff and defense sides in the areas of his expertise. Some cases follow:

- Texas Utilities Company - Collapse of a 600 foot tall chimney at Monticello Power Plant
- Delmarva Power and Light Company - Coal Grindability and Pulverizer Operations
- United States Attorney (TORTS DIV.) San Francisco, CA - Spontaneous Heating of Coal Cargoes on board arrested ships in Los Angeles Harbor
- Lloyds of London - Spontaneous Heating of Coal Cargoes on board 13 vessels in Los Angeles Harbor
- Southern California Edison Company - Steam Turbine Failure at Long Beach Station
- Attorney Cher DiLiberti - Shock Waves Created by an Explosion
- Chung Kuo Insurance Company (ROC) - Spontaneous Heating of Coal Cargoes
- United States Forest Service - Public Defender representing backhoe operator accused of starting a forest fire
- Cozen and O'Connor - Cooling Tower Failure at OESI
- Allstate Insurance Company - Fire caused by a horizontal residential gas heater
- Ferrell Gas Company - Propane Gas regulator Failure
- Pioneer Motor Bearing Company - Steam Turbine Failure San Antonio Municipal Power
- Mobile Dredging and Pumping v/The Estate of Eric Tenant-Oil Ash Fire and Explosion

INVENTOR:

Dr. Maloney is a patented inventor. Some of his inventions that are in practical service follow:

- Flue Gas Recirculation Systems for Boilers – fifty-one Installations in the US.
  - International Paper Company, Lock Haven Mill, Lock Haven, PA
  - H. J. Heinz/Duquesne Electric Company, Pittsburgh, PA
  - Abbott Laboratories, North Chicago, IL
  - Pekin Energy Company, Pekin, IL
  - General Electric Company, Plastics Division, Mount Vernon, IN
  - Grain Processing Corporation, Muscatine, IA
  - Weston Paper Company, Terre-Haute, IN
  - Cargill Inc, Memphis, TN and Eddyville, IA
  - Fort Howard Paper Company, Green Bay, WI
  - Upjohn Company, Kalamazoo, MI
  - University of Wisconsin, Madison, WI
  - Morton Salt Company, Manistee, MI
  - Henkel-Emory Company, Cincinnati, OH
  - Youngstown Thermal Corporation, Youngstown, OH
  - Indespec Chemical Company, Petrolia, PA
  - Bucknell University, Lewisburg, PA
  - Howard Paper Company, Dayton, OH
  - Abitibi-Price Company, Alpena, MI
  - Washington Prison System, Shelton, WA
  - Sonoco Products Corporation, Richmond, VA
  
- Stoker Gas Matrix Burner System - Natural Gas Burner Conversion for Coal Boilers
  - Fairmont Municipal Utility, Fairmont, MN
  - Kutztown University, Kutztown, PA
  - Selinsgrove Center, Selinsgrove, PA
  
- Closed Circuit Television and Infra-Red Thermometer (TVIT) Inspection System
  - Consolidated Edison Company, Ravenswood Station, Long Island City, NY
  
- HP Venturi Jet InterTube Burner
  - College of Wooster, Ohio
  
- Low Pressure Jet Burner
  - SSGC, Hongtong, PRC (COG)

PUBLICATIONS:

Dr. Maloney has published 29 technical papers in various areas of his expertise. A list of his publications is available upon request.

PROFESSIONAL SOCIETIES:

- Sigma Xi
- American Chemical Society
- Combustion Institute
- National Forensic Center
- Who's Who in the West
- Who's Who in American Colleges and Universities
- Listed in Lexis and Westlaw
- Association of Governing Boards of Universities and Colleges