SUMMARY OF PROFESSIONAL QUALIFICATIONS

Mr. Tiegs has over 36 years of experience in the technical engineering and management fields. He remains involved with the development and revision of national and international standards pertaining to the safety, efficiency, and emission performance of hearth products.

Mr. Tiegs is recognized internationally as an expert in the field of hearth product emissions characterizations, safety testing, and engineering evaluations. Mr. Tiegs was involved in several projects that generated information and data used in support of the development of the U.S. EPA's wood-fired heater New Source Performance Standard (NSPS: 40 CFR Part 60, Subpart AAA), and in 1998 he managed an OMNI project for the EPA to evaluate the NSPS and define states-of-the-art for residential wood combustion technology and testing. He has also managed several projects to develop methods for woodheater emissions and thermal efficiency testing. Under contract to Washington State, he provided technical support for the development of the States fireplace emissions standard. He also provided technical support for the development of masonry heater standards by the State of Colorado and fireplace standards proposed by the Northern Sonoma County, California Air Pollution Control District. He has participated on the ISO Technical Sub-Committee ISO TC116(3) for the development of a solid fuel room-heater standard addressing the thermal output, efficiency, flue gas emissions, and clearance from combustible surfaces. He has provided consultation to the Hearth, Patio & Barbecue Association for the ASTM development of air emissions test methods for fireplaces, masonry heaters, and outdoor hydronic boilers. He holds patents for a virtual witness testing procedure which allows manufacturers the convenience and cost benefits of certification testing new heating appliances at their own plant facilities with their own engineers and technicians.

EXPERTISE

Standards Development Air Emission Testing Safety Testing Testing Laboratory Management Solid- and Gas-Fueled Appliance Design Emission Measurement Instrumentation

EDUCATION AND ENGINEERING LICENSE

B.S. Biology, University of IllinoisM.S. Chemistry, Western Washington UniversityRegistered Profession Engineer (PE), Oregon # 52312PE