ANDRE DESJARLAIS 865-574-0022 desjarlaisa@ornl.gov

Innovative, hands-on research manager/scientist with a proven record of developing novel building envelope technologies and assessing their market viability while leading and coordinating a team of talented world class scientists to strive towards a common goal.

EDUCATION

B.S. in Aeronautics, *Boston University* 1973

PROFESSIONAL EXPERIENCE

Program Manager of Building Envelopes Program, *Oak Ridge National Laboratory* 1991 - Present

Manage the Department of Energy's lead organization for performing energy-related opaque building envelope research. In this capacity, Mr. Desjarlais is responsible for a research budget of approximately $10 million and oversees the activities of a staff of approximately fifteen scientists and engineers. He is responsible for the financial well-being of the program and has sought out financial support from the Department of Energy, other federal agencies, and the private sector to develop collaborative research opportunities.

Managerial responsibilities for this position include:

- responsibility for attracting sufficient financial resources for the staff;
- staffing, including training;
- liaison between staff and sponsors;
- interaction with laboratory management to verify that all reporting requirements and organizational rules are followed;
- development of research agendas and budgets;
- the technical quality of all research products produced by the Building Envelope Program;
- responsible for all environmental, health and safety issues; and
- represent the Laboratory and the Program at industry events, conferences, and meetings.

Specific technical highlights performed while leading the BEP Program include:

- the design, construction, and commissioning of a rotatable guarded hot box and data acquisition system that significantly extended the program's testing capabilities;
- the successful reroofing of a building at ORNL that demonstrated a novel procedure developed by the program;
- the recladding of a building at ORNL that reduced its energy consumption by 90 percent;
- the organization of two workshops dealing with reroofing issues and sustainable roofing that attracted approximately 250 attendees each;
- the organization of three international conferences on building science that attracted approximately 300 attendees each;
- the construction of three Natural Exposure Test (NET) facilities in different US climate zones to field test building envelope components;
- the organization of a field investigation program that sent out approximately 35 roofing professionals into the field to investigate hurricane damage to roofing systems created by Hurricanes Charley, Ivan, Katrina, and Ike;
- the development of a heat and mass transfer model to evaluate the durability of building envelope components;
- the development of test methods for cool roofing including accelerated aging test protocols;

- the study of the use of phase change materials to be deployed in building envelope components;
- the evaluation of steep slope attic systems to assess performance issues such as ventilation, radiant controls, color, insulation location, underlayment properties, and above sheathing ventilation;
- construction of four heavily instrumented energy efficient residential buildings that are showcases for varying energy efficiency envelope features;
- documenting the program's research results through the issuance of reports and technical papers;
- and the co-authoring of a report on self-drying roofs that was hailed as "the most important U.S. roofing report in at least the last 10 years."

Manager of Testing Services, *Holometrix, Inc. (formerly Dynatech R/D Company)* 1973 - 1991

At Holometrix, Mr. Desjarlais oversaw the technical and administrative performance of a $2 million/year contract laboratory business specializing in the thermal performance of materials and systems. Responsibilities included the technical and financial management of a staff of technicians and support personnel performing routine experimental programs on insulation materials and systems, and the design and implementation of specialized experimental strategies and instrumentation to obtain specific material properties or data. Responsible for the technical marketing of the Thermophysics Laboratory to potential clients by actively participating in industry technical committees, publishing and presenting technical papers and reports at industry conferences, authoring articles for trade magazines and direct contact with clients. Implemented a quality assurance system for a government-sponsored experimental program dealing with the long-term storage of nuclear waste materials requiring satisfaction of DoE's highest quality requirements.

Senior Design Engineer, *Westinghouse Electric Corporation* 1980

Engineer in the Aerodynamics Group of the Sturdevent Division in Hyde Park, MA. Responsibilities included the analytical design and experimental verification of industrial axial and centrifugal power fans (up to 100 inches in diameter) with emphasis on total efficiency improvements and cost reduction.

PROFESSIONAL ACTIVITIES

Member of the American Society of Heating, Refrigerating, and Air Conditioning Engineers including Technical Committees TC 4.4 on Building Envelopes, TC 1.12 on Moisture Management of Buildings, TC 1.8 on Mechanical Insulation Systems, and Standard 160 on Moisture Design of Buildings. Past Chairman of TC 4.4.

Member of American Society for Testing and Materials (ASTM) Committees C16 on Thermal Insulation, E06 on Building Systems, D08 on Roofing, and E60 on sustainability. Past-chairman of ASTM Committee C16. Fellow of ASTM.

Chairman and ORNL representative of the Federal Roofing Committee.

Member and past-director of the Single Ply Roofing Institute (SPRI).

Director of the Roof Consultants Institute Foundation.

Member, Director, and past Treasurer of the Roofing Industry Committee on Weather Issues (RICOWI).

Founding Member and ex-officio Director of the Cool Roof Rating Council and its Technical Subcommittee.

PUBLICATIONS

I have authored or co-authored over two hundred fifty technical papers, reports and proceedings including eight papers in 2015.