

Dr. Derek H. Lister, C.Eng., Professor Emeritus, Member of the Order of Canada
(1939 – 2023)

It is with sadness that we report of the passing of Dr. Derek H. Lister, former NSERC Senior Industrial Research Chair in Nuclear Engineering, Department Chair of Chemical Engineering and Professor Emeritus (2006). Derek passed away peacefully on July 12th, 2023 at the Ruddy-Shenkman Hospice in Kanata, Ontario following a short battle with brain cancer.

After a successful career in the nuclear industry that began in 1962 with the Atomic Power Division of the English Electric Co. Ltd in England, followed by 23 years at Atomic Energy of Canada Ltd, Chalk River, Derek moved to the University of New Brunswick in 1992 to take up the NSERC/NB Power/AECL Industrial Research Chair in Nuclear Engineering. The internationally renowned expertise Derek brought to UNB from his career at AECL encompassed the fields of chemistry and corrosion in nuclear reactor coolant systems and he quickly established a formidable research group and laboratory focused on three main areas: radioactivity and mass transport in primary reactor coolants; flow-accelerated corrosion (FAC) in primary and secondary coolant systems; and fouling under heat-exchange conditions.



Following his “retirement” in 2005, Derek was quickly awarded Professor Emeritus status (2006) where he continued his research activities until he could no more. In recent years, in addition to the key areas highlighted above, Derek had expanded R&D activities into related fields including studying the impact of film-forming substances on corrosion and the mechanisms of their action – a new area of coolant chemistry control gaining significant interest internationally. Over his 30+ years at UNB, Derek supervised over 100 graduate students (PhD’s and MSc’s), 9 Post-Doctoral Fellows and hosted 6 visiting Research Scientists. He published extensively producing over 50 peer-reviewed journal articles, numerous book chapters and endless contributions in conference proceedings, many as invited keynote speaker, all in addition to the scores of commercial reports produced for industry collaborators.

Throughout his career, Derek was a key technical resource lending his expertise to numerous organisations. He has served on the scientific advisory boards for Atomic Energy of Canada Ltd, the Nuclear Waste Management Organisation, the University Network for Excellence in Nuclear Engineering (UNENE) and UNB’s own Centre for Nuclear Energy Research (CNER). Internationally, Derek was a core member of Nuclear Plant Chemistry (NPC) conference series organising committee and a long-standing and productive member of the Power Cycle Chemistry Working Group of the International Association for the Properties of Water and Steam (IAPWS). As a testament to his impact and career, on December 27, 2019 Derek was appointed as a Member of the Order of Canada, the second highest honour of merit awarded to Canadian citizens, “For his contributions to nuclear energy research and improvements to occupational safety.”

Derek was a respected and long-standing colleague, scientist, teacher and mentor throughout his career and will be missed. In accordance with Derek’s final wishes, in lieu of a public memorial service his family will be holding a private memorial dinner in his honour at some date in the future.