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## CURRICULUM VITAE

(September, 2005)

### DEGREES:

B.Eng.Sc. University of Western Ontario, Civil Engineering, 1960  
M.A.Sc. Queen's University, Civil Engineering, 1962  
Ph.D. Northwestern University, Civil Engineering, 1966

### EMPLOYMENT HISTORY:

1998-2005 Executive Director Network for Environmental Risk Assessment and Management  
1996-2005 Emeritus Professor, Civil Engineering, University of Waterloo  
1977-1996 Professor, Civil Engineering, University of Waterloo  
1978 Senior Research Officer, Greater London Council  
1974-1975 Visiting Professor, University of Texas  
1972 Research Engineer, MTO  
1970-1971 Senior Research Officer, Greater London Council  
1969-1977 Associate Professor, Civil Engineering, University of Waterloo  
1967 Senior Research Officer, Greater London Council  
1965-1969 Assistant Professor, Civil Engineering, University of Waterloo

### SCHOLARLY AND PROFESSIONAL ACTIVITIES:

2005-2008 Head, Canadian Delegation to ISO risk management standard working group  
2005 Organized with Pollution Probe workshop, Policy Analysis Tools for Air Quality and Health  
2001-2006 Lead organizer for the NERAM International Colloquium Series on Air Pollution and Health  
Health and Air Quality: Interpreting Science for Decision Makers, 2001, Ottawa, Ontario  
Interpreting Epidemiological Studies of Acute & Long Term Exposure to Particulate Matter for Policy Development, 2002, Baltimore MD  
Strategies for Clean Air & Health, 2003, Rome, Italy (joint conference with AirNet)  
International Perspectives on Air Quality: Risk Management Principles for Policy Development 2005. Cuernavaca, Mexico  
2002 Organized conference, Drinking Water Safety: A Total Quality Management Approach (book published by NERAM in 2003)  
2001 Member of the technical secretariat for Royal Society of Canada Expert Panel to Review the Socio-economic models and related components supporting the development of Canada-wide standards for Particulate Matter and Ozone.  
1997-2002 Canadian Representative to ISO/IEC Working Group on Risk Management Definitions  
1996-2005 Director, Institute for Risk Research  
1996 Member of Canadian Delegation, Environmental Quality, A NAFTA Perspective, Mexico City, February.

- 1995 Member, Expert Panel on Risk Management, Inquiry into the Safety of the Canadian Blood System for the Krever Inquiry
- 1995 Keynote presentation, Taking the Risk out of Africa, Johannesburg, SA, October.
- 1993-1995 Member, Risk Management Board, Altro Ltd. (manufacturer of safety flooring)
- 1995 Planning Committee, Truck Safety Conference, Toronto.
- 1995 Chair, Planning Committee, Process Safety and Loss Management Conference, Toronto.
- 1994 Principle Investigator, Transportation Risk Assessment for the Alberta Special Waste Treatment Centre.
- 1994 Short Course on Risk Management, Ottawa (25 participants).
- 1992-1996 Member, CA Technical Committee for Risk Management Standard.
- 1993 Member of planning committee for Royal Society Conference "Managing Risks to Life and Health".
- 1993 Resource person for Emergency Response for Mexico and Mexico City; May 11, International Colloquium on Technological Disasters, Mexican Academy of Engineering; May 12, Academic Solutions to Disaster Planning, National University of Mexico; May 13, International Conference on the Prevention of Technological and Ecological Disasters, CENAPRED.
- 1993 Member of planning committee for International Workshop on Software Reliability, Ottawa.
- 1993 Member of planning committee for Biennial Canadian Conference on Process Safety and Loss Management, Edmonton.
- 1993 Conference planning committee for International Consensus Conference on the Risks of Transporting Dangerous Goods, Toronto.
- 1981-1993 APEO examiner in Transportation
- 1990-1992 Member, National Advisory Panel on Risks and Benefits of Drugs, Canada
- 1991-1992 Director, Institute for Risk Research (Acting 1986-91).
- 1989-1993 Member, Board of Directors, Major Industrial Accident Council of Canada.
- 1988-1993 Co-Chair, Working Group 1 - Risk Assessment Guide for Canadian Municipalities, Major Industrial Accident Council of Canada.
- 1991-1995 Technical Advisor to Transportation Development Agency, Montreal, on study by CanArctic of the risk analysis of transporting oil from the high Arctic.

**PUBLICATIONS: (lifetime)**

Books: 3

Chapters in Books: 8

Papers in Refereed Journals: 45

Papers in Refereed Conference Proceedings: 25

Technical Reports: 40

Others (Papers, Presentations, Workshops, Short Courses, etc): 50

Presentations: 100

**RECENT PUBLICATIONS:**

**Papers in Refereed Journals:**

Strategies for Clean Air and Health 2007. L. Craig, D. Krewski, J. Shortreed, and J. Samet eds.

Proceedings of the AIRNET Annual Conference/NERAM International Colloquium. NERAM Report 8, pp 268. *J. Toxicol. Environ. Health Part A*, Vol. 70 No. 3-4.

Jardine, C.G., Hrudey, S.E., Shortreed, J.H., Craig, L., Krewski, D., Furgal, C., and McColl, S. 2003. Risk management frameworks for human health and environmental risks. *J. Toxicol. Environ. Health Part B* Vol. 6, No. 6, 569-720.

Saccomanno, F.F., Nassar, S.A., and Shortreed, J.H., 1996, Reliability of Statistical Road Accident Injury Severity Models, Transportation Research Board.

Nassar, S.A., Saccomanno, F.F., Shortreed, J.H., and Matthews, D.E., 1996, "Large Truck Accident Prediction Models Using Poisson and Negative Binomial Regression", Accident Analysis and Prevention, (forthcoming)

Nassar, S.A., Saccomanno, F.F., and Shortreed, J.H., 1995, Selection of Model Structure for Road Accident Severity, Canadian Journal of Civil Engineering, Vol. 22, No. 5.

Shortreed, J.H., 1994, Beyond Sensitivity, Transfusion, Vol 34, No 10, 1-2.

Nassar, S.A., Saccomanno, F.F., and Shortreed, J.H., 1994, Road Accident Severity Analysis: A Micro Level Approach, October Issue, Canadian Journal of Civil Engineering, Vol. 21, 847-855.

Nassar, S.A., Saccomanno, F.F., and Shortreed, J.H., 1994, Disaggregate Analysis of Road Accident Severities, Vol. 15, No. 6, International Journal of Impact Engineering, Pergamon Press.

Saccomanno, F.F., M. Yu, and Shortreed, J.H., 1993, Risk Uncertainty in the Transport of Hazardous Materials, Record 1383, pp 58-66, Transportation Research Board, Washington.

Stewart, J.A., and Shortreed, J.H., Risk and Capacity Impacts of ATC Separation Rules, 1993, Journal of Transportation Engineering, ASCE, Vol. 119, No.5, pp 702-722.

Hellinga, B., and Shortreed, J.H., 1993, FREEVU, A Computerized Freeway Traffic Analysis Tool, Transportation Research Board Record, No. 1360, pp. 30-37, Washington.

Saccomanno, F.F., and Shortreed, J.H., 1993, Societal and Individual Risks for Hazmat Transport, ASCE Journal of Transportation Engineering, (citation to follow), originally in Abkowitz, M. and Zografos, K. eds, Transportation of Hazardous Materials, ASCE, New York, 1990, pp. 220-248.

Asante-Duah, D.K., Saccomanno, F.F., and Shortreed, J.H., 1992, The Hazardous Waste Trade, Can it be Controlled?, pp. 1684-1693, feature article, Environmental Science and Technology, Vol. 26, No. 9, American Chemical Society, Washington.

Asante-Duah, D.K., Saccomanno, F.F., and Shortreed, J.H., 1992, Tradeoff Evaluation of a Hazardous Waste Trade Program: Towards Informed Decision Making, accepted by Waste Management and Research, Copenhagen, Denmark.(citation to follow), 20 pp.

Saccomanno, F.F., Shortreed, J.H., and Mehta, R., 1990, Fatality Risk Curves for Transporting Chlorine and Liquefied Petroleum Gas by Truck and Rail, Transportation Research Record, No 1264, pp. 29-41, Transportation Research Board, Washington.

Saccomanno, F.F., Shortreed, J.H., and M. Thompson, 1990, Fault Tree Analysis of Releases of Pressure-Liquefied Gases from In-Transit Rail Bulk Tankers, *International Journal of Forensic Engineering*, Vol.2, No.3, pp. 357-369.

Stewart, A.M., M. Van Aerde, and Shortreed, J.H., 1990, Enhancements and Updates to the RISKMOD Risk Analysis Model, *Journal of Hazardous Materials*, Vol.25, pp. 107-119, Elsevier.

### **Papers in Refereed Conference Proceedings:**

Shortreed, J.H., and Del Bel Belluz, D., 1999, Chapter 6 in TCRP Report 52: Joint Operation of Light Risk Transit or Diesel Multiple Unit Vehicles with Railroads, Transportation Research Board, National Research Council, Washington, DC.

Saccomanno, F. F., Yu, M., and Shortreed, J.H., 1995, Effect of Driver Fatigue on Truck Accident Rates, *Proceedings, Urban Transport and Environment*, Southampton.

Shortreed, J.H., Ramsay, S., and Cutts, P., 1995, Risk Analysis for the Movement of Hazardous Wastes, *Proceedings, Process Safety and Loss Management II*, Toronto.

Nassar, S.A., Saccomanno, F.F., and Shortreed, J.H., 1994, Statistical Concerns in the Analysis of Road Accident Severity, *Proceedings of the Canadian Society of Civil Engineering*, Vol. 1, pp. 546-556.

Shortreed, J.H., Dinnie, K. and Belque, D., 1993, Risk Criteria for Public Policy, *Proceedings Canadian Conference on Process Safety and Loss Management*, Institute for Risk Research, Waterloo, Canada.

Shortreed, J.H., Saccomanno, F.F, and Hipel, K, 1993, Risk Communication for the Movement of Dangerous Goods, *Proceedings, International Consensus Conference on the Risks of Transporting Dangerous Goods*, University of Waterloo Press, Waterloo.

Saccomanno, F.F., Stewart, A, and Shortreed, J.H., 1993, Uncertainty in the estimation of risks for the transport of hazardous materials, in *Transportation of Hazardous Materials*, Moses, L.N. and D. Lindstrom (Editors), Kluwer Academic, Boston, pp. 159-184.

### **Technical Reports, etc.**

Shortreed J.H., L. Craig and S. McColl, 2001, Benchmark Framework for Risk Management, NERAM Report 6

Shortreed, J.H., Hicks, J., and Craig, L. 2003. Basic Frameworks for Risk Management. Prepared for The Ontario Ministry of the Environment, based on Risk Management Seminar "Basic Frameworks for Risk Management." NERAM Report 7, pp 74.

Shortreed, J.H. 2001. A Risk Management Perspective of the Precautionary Principle, in Application of the precautionary principle for the assessment and management of environmental contaminants in children. Precautionary Principle and Children's Health, L. Craig, ed. NERAM Report 5, pp 109-118.

McColl, S., Hicks, J., Craig, L. and Shortreed, J. 2000. Environmental Health Risk Management: A Primer for Canadians, NERAM Report 4, pp. 218.

Shortreed, J.H., Del Bel Belluz, D., and Knapp, G., 1999, Accident Analysis for the St. Lawrence River Channel, Institute for Risk Research, Waterloo.

Shortreed, J.H., and Burn, D., 1999, Managing Climate Change Risk, Institute for Risk Research, Waterloo.

Furgal, C., Craig, L., Shortreed, J.H., and Keith, R., 1999, Country Foods: Benefits and Risks: A Resource Document for Nunavik and Labrador, Institute for Risk Research, Waterloo.

Shortreed, J.H., Al-Ali, W., Pandey, M.D., and Nathwani, J.S., 1998, Environmental Risk Assessment Using Life Quality Methods for Health and Development Impacts. Prepared for Impact of Environmental Pollution on Development in the Gulf Area Conference, Kuwait, March 15-17, 1998.

Shortreed, J.H., and Del Bel Belluz, D., 1997, Risk Analysis of Marine Navigation Aids, Institute for Risk Research, Waterloo.

Saccomanno, F.F., and Shortreed, J.H., (eds.) 1996, Truck Safety: Perceptions and Reality, Institute for Risk Research, Waterloo.

Shortreed, J.H., and Del Bel Belluz, D., 1996, Arctic Tanker Risk Assessment - Phase 3, Institute for Risk Research, Waterloo.

Furgal, C., Shortreed, J.H., Keith, R., Craig, L., and Dewailly, E., 1996, Inuit Perspectives on Environmental Contaminants, Institute for Risk Research, Waterloo.

Shortreed, J.H., 1995, Marine Safety Analysis and Functional Evaluation System, Report for the Canadian Coast Guard, 31p.

Shortreed, J.H., et al., 1994, Transportation Risk Assessment For Hazardous Wastes in Alberta, Natural Resources Conservation Board of Alberta.

McColl, S., Cross, J., Husted, J., Lind, N., Shortreed, J.H. and Zangwill, L., EMF Risk Assessment Methodology, Year 1 Report, Institute for Risk Research, 1993.

Cherry, W., Bennett, R., and Shortreed, J.H., 1991, Benchmark Risks for Use in Risk Assessment, for Health and Welfare Canada. 43 pages plus appendices.

Saccomanno, F.F., Bradbury, S., Kemp, T., and Shortreed, J.H., 1991, Review of Transportation Risk Assessment for the Proposed Swan Hills Waste Treatment Centre, for the Swan Hills Expansion Review Coalition, Institute for Risk Research, University of Waterloo.

Saccomanno, F.F., Shortreed, J.H., and Wang, M., 1990, Statistical Analysis of Accident Rates on the Ontario Road Network, Reports I, and II, for Transportation Regulation and Development Branch, Ontario Ministry of Transportation, Toronto, (46 and 54 pages).

Hellinga, B., and Shortreed, J.H., FREEVU, A Computerized Freeway Traffic Analysis Tool, prepared for Research and Development Branch, Ontario Ministry of Transportation, Toronto, 197 pages, 1990.

**Others: (Papers, Presentations, Workshops, Short Courses, etc.)**

Note: Publications listed elsewhere are not included here

Shortreed, J.H., 1996, Sustainability, Risk And Decisions, Proceedings Workshop on Environmental Quality, Mexico City.

Shortreed, J.H., 1995, Making Decisions on Risk, Proceedings, Taking the Risk out of Africa, Johannesburg.

Shortreed, J.H., Book Review, 1995, Probabilistic Risk and Hazard Assessment, Can. Journal of Civil Eng., April.

Hipel, K. and Shortreed, J.H., Risk Analysis, in 8th edition of McGraw-Hill Encyclopaedia of Science and Technology, 1995.

Shortreed, J.H., 1994, Risk Assessment for Municipalities and Industry, Health and Safety Conference, Toronto.

Shortreed, J.H., 1994, Is Risk Management of the Environment Possible?, Colloquia on EnvironMetrics, University of Western Ontario, London.

Shortreed, J.H., Book Review, 1994, Guidelines for Implementing Process Safety Management Systems, Can. Journal of Chemical Eng., Vol 72, August.

Young, C., Shortreed, J.H., and Frazer, N., 1993, Improving the Effectiveness of Emergency Response, ER93 (Emergency Response), Fredericton, New Brunswick.

Shortreed, J.H., Bissett, W. and Shrikes, J., 1993, Managing Industrial Risks in Canada, International Colloquium for the Prevention of Technological and Ecological Disasters, Mexico City.

Saccomanno, F.F., and Shortreed, J.H., 1993, Risk Estimation for the Transport of Dangerous Goods: Report of Corridor Analysis; International Consensus Conference on the Risks of Transporting Dangerous Goods, University of Waterloo Press, Waterloo.

Shortreed, J.H., Benefit/Risk/Cost Management, 1993, Chapter 4 in Benefit, Risk Cost Management of Drugs, Report of the National Advisory Panel Risk/Benefit Management of Drugs, Canadian Public Health Association, Ottawa.

Shortreed, J.H. (editor), 1993, Workshop Proceedings, Management of Risk, Benefit and Costs of Pharmaceuticals, Canadian Public Health Association, Ottawa. Also contains presentation by Shortreed, J.H. on the Issues in Drug Management in Canada, and the Workshop Discussion Document prepared by Shortreed, J.H.. Shortreed, J.H. was the Chair of the workshop.

Shortreed, J.H., Perceptions of Risk, 1992, pp 117-138, Proceedings of an Interdisciplinary Symposium, Agriculture and Water Quality, Centre for Soil and Water Conservation, University of Guelph, Guelph.

Saccomanno, F.F., Bakir, O., and Shortreed, J.H., 1992, Analysis of Risk Uncertainties in Estimating Transport Risks, 6th World Conference on Transport Research, Lyon, France.

Shortreed, J.H., 1992, The APC's of Risk Management, Paper presented to the Annual meeting Society for Risk Analysis, McLean, VA.

Saccomanno, F.F., Nassar, S.A. and Shortreed, J.H., 1992, Disaggregate Model of Road Accident Severities, Proceedings, 4th International Conference on Structural Failure, Product Liability and Technical Insurance, Technical University of Vienna, Austria.

Shortreed, J.H., 1992, The Analysis and Assessment of Industrial Risks, Symposium Proceedings, Managing Industrial Risks, Ordre des Ingenieurs du Quebec, Montreal.

Shortreed, J.H., 1992, Balancing Technological Benefits and Risks, in Engineering and the Environment, Sesquicentennial Symposium, Faculty of Applied Science, Queen's University, Kingston.

Shortreed, J.H., 1995, More Issues than Answers: Safety of the Canadian Blood System, Bridging the Gap Lecture, University of Waterloo.

Risk Management and Safety Performance Indicators, 1994, Workshop on Aviation Safety, Transport Canada, Montreal.

The MIACC Approach to Risk Assessment, with J. Shrives, 1994, Workshop on Risk Analysis, University of Western Ontario.

Setti, J.R., and Shortreed, J.H., 1993, Aspects on Assessing the effectiveness of Emergency Responses by Fire Fighters, Workshop on Fire Safety, Institute for Risk Research, University of Waterloo.

Shortreed, J.H., 1993, Technological Risk Reduction Research in Canada, International Conference on the Prevention of Technological and Ecological Disasters, National Centre for the Prevention of Disasters (CENAPRED), Mexico City.