

Douglas S. G. Nix A.Sc.T.

Curriculum Vitae

Industrial Machinery Safety Expertise in a Global Market

Current

Compliance InSight Consulting Inc. (2000 to present)

Managing Director & Principal Consultant, Author, Podcaster

The company carries out three main branches of activity: Machinery Safety Consulting, Regulatory Consulting, and Training Services.

Work includes the safety-related analysis of customer products supported by consulting services to aid clients in applying Canadian, US and European product law and technical standards to their specific products. This work includes the direct technical assessment of product safety, the development and implementation of training programs, and the creation of suitable product documentation.

The work also includes the production of a blog and podcast on machinery safety called Machinery Safety 101. The podcast covers a wide range of typical and not-so-typical machinery safety problems that have been encountered while conducting product safety analyses and helps the listener to understand some of the approaches that can be used to deal with the specific problem. Listener questions are also answered.

The work also includes contributing to a number of industry publications. See the Publications section of this document for details.

Day to day operation of the company from a sales and technical operations perspective.

International Organization for Standardization - ISO (2012-Present)

Member, TC 199 Safety of Machinery

Standards Council of Canada, SCC (2012-Present)

Member, Canadian Advisory Committee to ISO TC 199, JWG1 and WG5

Canadian Standards Association (2007 to present)

CSA Z1002 Technical Committee:

Member, Chair Drafting Subcommittee, Chair WG2 Definitions

This committee is currently developing the first workplace risk assessment standard for Canada, currently titled "Occupational health and safety – Hazards and risks –

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IEEE: dnix@ieee.org

Home: dnix@mac.com

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Identification, assessment, elimination and control". I Chair both the Drafting Subcommittee and the Definitions Working Group. Publication of the First Edition of this standard is expected in the Fall of 2010.

IEEE Product Safety Engineering Society (2005 to present)

Vice-President, Conferences (2010, Term 2011-13)
Member-at-Large, Board of Directors (2007-2010)
Past Chair, Symposium Steering Committee (2009 PSES Symposium)
Chair, Risk Assessment Technical Advisory Committee (2008-2010)
Membership Development Liaison, Region 7 (Canada) (2010)

IEEE Engineering & Human Environment Joint Chapter - Toronto Section (2009 to present)

Chapter Chair (2012-Present)
Chapter Vice-Chair, and PSES Representative (2009-2011)

Awards

June 2007 OACETT Publications Award for *Standard Issue*, Jan/Feb 2006 OACETT Technologist Magazine

Publications

2009

Are You Ready for the Coming Changes in Robot Safety? – Webinar
Presented through Pilgrim Software, www.pilgrimsoftware.com, 19-Nov-2009.
Webinar discusses the adoption of ISO 10218-1 into the ANSI standards family as ANSI/RIA/ISO 10218-1 and the effects this will have on industrial robot users and integrators.

Available for download at the Pilgrim Software web site and through www.machinerysafety101.com.

2007 – Present

Machinery Safety 101 Blog & Podcast – <http://www.machinerysafety101.com>
Produce a blog and occasional podcast covering a broad range of subjects relating to design of machinery, safeguarding, risk assessment, regulatory conformity and related subjects.

2007: Volume 2

- *V2N1 Safety Guy Podcast – Risk Scoring Systems: An Interview with Tom Doyle.*
- *V2N2 Safety Guy Podcast – Hazard Identification.*

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- V2N3 MS101 – *Introducing ISO 13849-1, Reliability of Safety Related Parts of Control Systems.*
- V2N4 MS101 – *Laser Safety with Johnny Jones.*

2006 *The Safety Guy Podcast* – <http://www.machinerysafety101.com/>
This podcast covers a broad range of subjects relating to design of machinery, safeguarding, risk assessment and related subjects.

2006: Volume 1

- V1N1 Safety Guy Podcast – Who is the Safety Guy? What is Safety Engineering?
- V1N2 Safety Guy Podcast – Design Methodology and The Myth of Common Sense.

OACETT Technologist

Jan/Feb 2006: *Standard Issue* pp 20-22 – CSA Z460 Lockout Standard
Nov/Dec 2005: *Sign Language* pp 20-22 – Hazard Warning Signs and Labels
Mar/Apr 2004: *Don't Gamble with Safety* pp. 17-21 – Risk Assessment
Volume 45, Number 4: *The XYZ of robot safety* pp. 18-21 – Robot Safety
Volume 45, Number 1: *Light Fright* pp. 12-16 – Laser Safety
Volume 44, Number 2: *On Guard* pp. 16-19 – Pre-Start Health and Safety Reviews
Regular Columnist on Safety in 2002-2003

IEEE Product Safety Engineering Society Newsletter

Volume 5, Number 3: *2009 PSES Symposium*
Volume 4, Number 4: *2008 PSES Symposium Report*
Volume 3, Number 2: *2007 CSA/RIA Robot Safety Conference Report*
Volume 2, Number 4: *2006 PSES Symposium Report*
Volume 2, Number 1: *2005 PSES Symposium Report*

Teaching Activities

In addition to regular consulting with clients, the programs listed below were developed and taught:

2008 – Present

QUAL0120 - Introduction to Risk Assessment and Control, Conestoga College
Institute of Technology and Applied Science, Doon Campus, Kitchner, Ontario.

2007

IEEE PSES Symposium: *New Thinking in Control Reliability*
CSA/RIA Robotic Safety Conference: *What's New in Control Reliability?*

2006

IEEE PSES Symposium: *Machinery Risk Assessment*

2003

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- 2002 IAPA PetroChem Forum: *Machinery Safeguarding*
- 2002 QPS Seminars: *Regulation 851 Section 7, Risk Assessment for Industrial Machinery.*
QPS Internal Training: *Lockout/tagout for field inspectors.*
- 2001 QPS Internal Training Programs: *Risk Assessment for Industrial Machinery*
- 1999 SIMCOM International: *CE Marking, Design for EMC Conformity, Risk Assessment, Safeguarding of Machinery*

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1998

ATS Automation Tooling Systems Inc.: *Internal Seminars - CE Marking, Design for EMC Conformity, Risk Assessment, and Safeguarding of Machinery*

Customer specific training on machinery safety and risk assessment are provided on a continuing basis.

Committees

2012 – Present

Standards Council of Canada

Member - Canadian Advisory Committee to ISO TC199

2010 – Present

IEEE Product Safety Engineering Society

Board of Directors - VP Conferences (2010-2013)

Chair, Conferences Executive Committee

Membership Development Committee

Membership Liaison, Region 7 (Canada)

Risk Assessment Technical Committee

Member

Laser Safety Technical Committee

Member

Industrial Equipment and Controls Technical Committee

Member

2009 – Present

IEEE Toronto Section

Engineering & Human Environment Joint Chapter

Vice-Chair, Product Safety Engineering Society;

2008 – 2010

IEEE Product Safety Engineering Society

Risk Assessment Technical Advisory Committee

Chair

2007 – Present

Canadian Standards Association

Technical Committee Z1002 - Occupational health and safety – Hazards and risks – Identification, assessment, elimination and control.

Chair, Drafting Subcommittee

Chair, WG2 Definitions

Member, Executive Committee

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IEEE Product Safety Engineering Society

Board of Directors, Director at Large;
General Chair, 2009 Symposium Committee

2007 – 2008

Conestoga College Institute of Technology, Kitchener, Ontario
Electrical Engineering Program Advisory Committee, Robotics and Automation
Engineering Program Advisory Committee.

2004 – Present

IEEE Product Safety Engineering Society Technical Advisory Committee
Member, Functional Safety Subcommittee;
Member, Hazard Based Safety Engineering Subcommittee.

Certifications

2006 – 2007: Joint Health and Safety Committee Certified Member (D00720), WSIB

2005 – Present: Applied Science Technologist (A.Sc.T), OACETT

1991 – 2005: Certified Engineering Technician – Instrumentation (C.E.T.), OACETT

Professional Memberships

2004 – Present: IEEE Product Safety Engineering Society

2002 – 2007: Canadian Society for Safety Engineering

1998 – 2005: Standards Engineering Society

1991 – Present: Ontario Association of Certified Engineering Technicians and Technologists

Education

Continuing Education

2007

Laser Safety Officer, *Laser Professionals, Inc.*
Sales Forecasting & Financial Projections, *Kitchener Small Business Centre*
Writing a Business Plan, *Kitchener Small Business Centre*
Market Research, *Kitchener Small Business Centre*
Developing Your Marketing Plan, *Kitchener Small Business Centre*
Sales Forecasting, *Kitchener Small Business Centre*
WHMIS Training, *KTS Consulting, Toronto, ON.*

2006

Fall Arrest Awareness Training, *Acute Environmental and Safety Services*
Joint Health and Safety Committee Certification, Part 2: Sector Specific, *Industrial Accident Prevention Association*

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Hydraulic Power Press Safety, *Bosch Rexroth Canada*

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2005

Joint Health and Safety Committee Certification, Part 1, *Workplace Safety & Insurance Board*

Controlling Hazardous Energy – CSA Z460, *Industrial Accident Prevention Association*

Noise Exposure Measurement, *Industrial Accident Prevention Association*

Advanced Collision Avoidance, *Young Drivers of Canada*

2003

OACETT Professional Practice Examination, OACETT

OACETT Professional Practice Seminar, *Conestoga College, Kitchener, ON*

AAMI Software Validation Requirements and Industry Practice (AAMI SW 68)

AAMI Risk Management for Medical Device Manufacturers (ISO 14971)

1999

Basics of Lasers and Optics, Industrial Laser Safety, Laser Safety Officer, *Rockwell Laser Industries, Cincinnati, OH*

1998

Product Liability and Loss Prevention, EMC Conformity Training, Risk Assessment Training, *SIMCOM International, Atlanta, GA*

1992

Red Cross Standard First Aid

1989

Red Cross Standard First Aid

1987

Effective Supervision – Communications, Effective Supervision – Human Relations, *Conestoga College, Guelph, ON*

Post Secondary Education

1985

Sheridan College - Davis Campus, Brampton, Ontario

Electronics Engineering Technician – Microcomputer Option Diploma with courses toward the Electronics Engineering Technologist Diploma.

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Work Experience

Compliance InSight Consulting, Inc. (2000 to present)

Product: *Product Safety Consulting Services*

Managing Director, Consultant, Author, Podcaster

Own and operate this small consulting business servicing industrial clients and other compliance companies by providing North American and European CE Mark related consulting and management services.

- Design and present educational seminars on regulatory compliance relating to the North American and EU conformity systems.
- Provide turn-key CE marking services including Machinery, Low-Voltage and EMC assessments.
- Coordinate ATEX and Pressure Equipment assessments and EMC Testing using 3rd party test labs.
- Provide turn-key Laser Safety assessments and FDA CDRH submissions.
- Provide Risk Assessment and Machinery Safety related consulting services.
- Write magazine popular technical articles on machinery safety topics.
- Produce the *Machinery Safety 101* podcast, covering a wide variety of machinery safety related topics, including risk assessment, control reliability, interlocking, emergency stop, etc.
- Manage the day-to-day operations of the business with focus on sales and technical operations

QPS Evaluation Services Inc. (2006 to 2007)

Product: *Product Safety Certification and Inspection Body*

Program Manager, Machinery Safety Services

This position involves the continuing development of the Pre-Start Health and Safety Review Program under the Occupational Health and Safety Act in Province of Ontario, Canada. Staffing has varied from one to three staff engineers reporting to me.

Machinery evaluation work has taken place in Canada, the U.S., and Japan.

QPS Evaluation Services Inc. (2001 to 2006)

Product: *Product Safety Certification and Inspection Body*

Program Manager, CE Marking & Machinery Safety Services

Service industrial clients by providing CE mark and Machinery Safety related consulting and management services.

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- Provide machinery safety assessments under the Ontario Health and Safety Act and Regulation 851.
- Design and present educational seminars on regulatory compliance relating to the EU, US and Canadian conformity systems.
- Provide turnkey CE marking services including Machinery, Low-Voltage and EMC assessments.
- Coordinate CE Mark related testing (EMC & Product Safety) using third-party test labs.
- Provide complete Laser Safety assessments and FDA CDRH submissions.

ATS Automation Tooling Systems, Inc. (1992 to 2000)

Product: *Industrial Automation Systems*

Compliance Engineer & Laser Safety Officer (2000)

In addition to Compliance Engineering tasks listed below, responsible for laser system safety for Systems Division. Hazard assessments, control measures, laser safety training, standard operating procedures and associated duties.

Compliance Engineer (1996 - 2000)

Development of European regulatory compliance strategy, training of design staff in Risk Assessment, design requirements and documentation. Assessment of existing designs for compliance. Inter-divisional intra- and inter-company consulting on standards compliance issues.

Control System Designer (1992 - 1996)

Working with Mechanical and Software Designers, Toolmakers and Electricians from design concept to produce full control system designs including: I/O lists, wiring schematics, cable sheets & valve lists, Bill-of-Materials and requisitions; assisting on the shop floor with construction and de-bug of machines.

Fleck Manufacturing (1992)

Product: *Electrical and Electronic Wire Harnesses and Wiring Products*

Test Equipment Technologist

GFC Power Ltd./GFC Hammond Manufacturing (1985-1991)

Product: *Switch-Mode and Linear Power supplies.*

Test Engineer

Production Test Supervisor

Engineering Technologist

Production Test Technician

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References

*Please see my LinkedIn profile at <http://www.linkedin.com/in/dougnix>.
Additional references available upon request.*