

TOM DOGGART, P.E.

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EDUCATION:

- 1994 **Master of Science in Materials Science**, concentrating in Precision Manufacturing
University of Connecticut
Thesis: “Chipping of Nitrided Surfaces: Causes and Solutions”
- 1989 **Nuclear Submarine Officer Training**,
United States Navy – Extensive managerial and technical training on the Theory,
Operation and Maintenance of seagoing nuclear powered vessels. Culminating in an
Officer’s qualification in Submarines in 1991.
- 1987 **Bachelor of Science Mechanical Engineering**, Cum Laude
University of Connecticut
- 1987 **Bachelor of Science Materials Engineering**, Cum Laude
University of Connecticut

EXPERIENCE:

- Mar 04 - **Director and Principle Engineer**, Nomad Metallurgy Inc, Fort Mill SC / Niantic CT
Present Owner and Managing Engineer of an Independent Metallurgical Consulting Firm
- Providing metallurgical and materials engineering services to various clients, ranging from ongoing materials engineering support to continuing operations, through major failure and litigation projects down to individual quality tests
- Mar 06 - **Consulting Materials Laboratory Assessor**, A2LA, Fredericksburg VA
Present Provider of 3rd party independent technical and quality system assessments of mechanical and materials testing laboratories to ISO17025 and various technical industry standards
- Jun 02 – **Director and Principle Engineer**, Stork – Herron Testing Laboratories, Charlotte NC
Mar 04 P&L, Managerial and Engineering responsibility for an independent 12 person A2LA accredited testing lab offering Chemical, Mechanical, Metallurgical and NDE testing
- Provided materials engineering services to a wide variety of industrial and legal customers. Managed the 12 person staff working in the metallic chemical testing, mechanical testing, metallurgical testing and non-destructive evaluation fields, in a \$1+ million/yr facility

Mar 96 – **Chief Materials Engineer**, PerkinElmer Centurion Mechanical Seals (ex-EG&G SEALOL)
Mar 02 Responsible for all material related functions including, design, specification, testing, process design and trouble shooting, failure analysis and customer interactions.

Provided materials engineering, testing, quality assurance and manufacturing process development for \$30+ million/yr an aerospace and engineered seals company. This included the use of 6-sigma and lean manufacturing techniques to develop 3 novel welding manufacturing processes, NADCAP and ISO quality system creation and maintenance

May 94 – **Assistant QA Manager / Mechanical Testing Lab Manager**, Danaher Tool Group-WH
Mar 96 Managed an A2LA accredited 10 person fastener testing laboratory while responsible for all failure analysis, plant wide process improvement and scrap reduction

Provided materials engineering, process development and quality assurance for a threaded fastener and hand tool manufacturing facility that processed ~1 million lbs or steel part/mo.

Sep 92 – **Graduate Assistant/Lab Manager**, UCONN Center for Grinding Research and Development
Feb 94 Oversaw industry sponsored research, saving sponsor ~\$100K/yr. Managed all functions of the CGRD Materials Characterization Lab and undergraduate metallurgy laboratory class

May 87 – **Naval Submarine Officer (Active Duty)**, USS Blueback (SS-581) / USS LaJolla (SSN-701)
Sep 91 Responsible for the operation, maintenance and management of operational submarines.

Provided personnel management, tactical assessment and implementation, operation and maintenance of various seagoing nuclear and conventionally powered submersible naval vessels

Nov 92 – **Naval Reserve Officer (Retired)**, Office of Naval Research, S&T 201, Raleigh NC
Sep 07 Provided real work technical expertise to naval research projects aimed at affecting current and future naval vessels and production methods

REGISTRATIONS:

Professional Engineer in Connecticut, 19049

Professional Engineer in Texas, #85672

Professional Engineer in North Carolina, #029065

Professional Engineer in South Carolina, #23697

PROFESSIONAL ORGINIZATIONS/CERTIFICATIONS:

03/2002 Six Sigma, PerkinElmer Corporate Green Belt

1999 – Present High School Science Fair Judge (~5 fairs per year including the Intel International Science & Engineering Fair)

4/1998 PADI Scuba Diver

9/1991 US Navy Qualification in Submarines - Officer

ASM International	ASM	Chairman RI Chapter 2001-2
American Welding Society	AWS	Member
National Association of Corrosion Engineers	NACE	Member
National Society of Professional Engineers	NSPE	Chairman SCSPE-Catawba Chapter 2007

CONTINUING EDUCATION:

6-11/1987 New Port RI US Navy
Officer Candidate School

2-4/1989 Old Saybrook CT New London Diving
PADI Open Water Diving Course

6/1989 New London CT US Navy
Submarine Officer basic Course (SOBC)

10/8/1994 Branford CT Gary Chapman Atlantic NDT Training
Magnetic Particle Inspection, level I & II Training

10-12/1994 West Hartford CT Danaher Corporate Training
5-S Facility Organization and Kaizen Lean Manufacturing Training

11/2-3/1994 West Hartford CT Joseph DeCarlo Excel Partnership, Inc.
ISO 9000 Quality System Auditing

2/1995 Orlando FL US Navy
Naval Operations Analysis Correspondence Course (NAVEDTRA 13102-A1)

04/4//1995 Worchester MA Johnson Gage Company
External and Internal Thread Design and Gaging

6/23/1995 Windsor CT Roger LaChance ASM International
Testing, Inspection & Quality Control

6/16/95	Boston MA		Mitutoyo
Gage Calibration			
6/1995	Materials Park OH		ASM International
“Elements of Metallurgy” MEI Correspondence Course #062			
8/1995	Warrendale PA		The Minerals, Metals & Materials Society
“Metallurgical Engineer – PE Refresher Course”			
6/1/1995	Materials Park OH		ASM International
“Refresher Course in Metallurgical Technology” MEI Correspondence Course			
6/3-5/1996	Fort Lee NJ	S. R. Schmidt	Air Academy Press
“Mastering the Art of Statistical Thinking”			
7/22-25/1996	Fort Lee NJ	S. R. Schmidt	Air Academy Press
Design of Experiments, “Blending the best of the Best Experimental Design Techniques”			
8/1997	Waltham MA	William Curan	EG&G Sealol
Facilitator Training Program			
11/3/1998	East Hartford CT		Fred Pryor Seminars
Accounting for Non-Accountant Managers			
02/21/1999	New haven CT	Roland Holstead	US Navy
Officer Leadership Course			
2-5/1999	Warwick RI	Frank McCain	Ocean State Testing Inc
Gas Tungsten Arc welding Course – 80 hr hands on class			
2/1/2001	Materials Park OH		ASM International
Chapter Leadership Training			
02/6/2001	Materials Park OH		ASM International
Surface Engineering Processes for Wear & Corrosion			
08/11/2001	Raleigh NC	William Collette	US Navy
Naval Reserve Officer Leadership Course			
10-12/2001	Beltsville MD	Udaya Talwar	PerkinElmer Centurion Seals
Six Sigma Specialist “Basic Statistics and design of Experiments”			
10/15-17/2001	Providence RI	H. Thielsch PE	Thielsch Engineering
Failures, failure Prevention, Maintenance and Repairs of Pressure Vessels, Boiler Piping and Rotating Machinery			
2/11-12/2002	Warwick RI	Dominick DaCosta	FAA/DER/DAA
“FAA Regulatory Familiarization regarding Major Repairs & Alterations, and Modifications”			

9/2002	Orlando FL		US Navy
Mathematics: Basic Math & Algebra			Correspondence Course (NAVEDTRA 14139)
8/2003	Orlando FL		US Navy
Steel Worker Volume 1: Unit 1			Correspondence Course (NAVEDTRA 14250)
2/6/2003	Charlotte NC	Al Brazell	NACE Charlotte Section
NACE Cathodic Protection Tutorial II			
01/12-16/2004	Laguna Beach CA	Steve Bosworth	Bosworth & Kenney Selling
Customer Centric Selling			
12/2004	Orlando FL		US Navy
Hull Maintenance Technician: Unit 1			Correspondence Course (NAVEDTRA 14119)
8/2005	Orlando FL		US Navy
Airborne Turbine Engine Maintenance			Correspondence Course (NAVEDTRA 14008)
3/7-10/2006	Columbia MD		A2LA
Assessor Orientation Course (ANS/ISO/IEC 17025 Laboratory Quality Management)			
10/2006	Materials Park OH		ASM International
“Fundamentals and Applications of Powder Metallurgy” – MEI Correspondence Course # 0132			
11/21/2006	Charlotte NC	Dr Kenneth Humphreys, PE CCE	UNCC
“The Ethical and Professional Responsibility of Engineers and Project Managers” – 8 PDH			
1-2/2007, 3/2008	Rock Hill SC		YorkTech – Continuing ED
ASM Intl. “Metallurgy for the Non-Metallurgist”			3.2 CEU (Instructor)
5/10/07	Columbia SC		James Mangraviti, Jr, ESQ., SEAK Inc
“Advanced Deposition Skills for Experts”			
7/2007	Orlando FL		US Navy
Fluid Power			Correspondence Course (NAVEDTRA 14105)
9/2007	Orlando FL		US Navy
Mathematics, Trigonometry			Correspondence Course (NAVEDTRA 14140)
1/2009	Columbia MD		HalfMoon LLC
“Minimizing Engineering Liability Exposure”			
3/2009	Tolechee GA		BSA / Leave No Trace
“Leave No Trace – “Master Educator”			
8/2009	Princeton NJ		ASM International
ASM Materials Camp – Teachers			4.0 CEU’s (Assistant Instructor)

11/2010	Fleming Island, FL	SunCam Inc
Forensic Engineering Part A & B 057)		Correspondence Course (056 &
12/2010	Fleming Island, FL	SunCam Inc
Welding Technology		Correspondence Course (033)
3/2011	Rock Hill SC	YorkTech – Continuing ED
ASM Intl. “Principles of Failure Analysis”		3.0 CEU (Instructor)
3/2011	Orlando FL	MIM2011 PIM tutorial
Powder Injection Molding –1 - Day class		MIM2011 conference

PUBLICATIONS:

“Chipping of Nitrided Surfaces: Causes and Solutions,” M.S. Thesis, University of Connecticut, May 1994

“Chipping of Sharpened, Nitrided Spool Valve Edges: Problem Diagnosis and Solutions,” Technical Papers – Society of Manufacturing Engineers, Proceeding of the NAMRC XXIII Conference, May 24-26 1995, with Hemant Gupta, Ph.D. and Trevor Howes Ph.D.

“Nitriding Induced Embrittlement,” Journal of Materials Processing and Manufacturing Science, V4, N4, April 1996, with Hemant Gupta, Ph.D.

“Investigation of Spalling of Case-Hardened Nitralloy,” Journal of Material Science, V32, N8, Apr 15 1997, with Hemant Gupta, Ph.D.

Updated through 3/12