

Committee on Energy and Commerce
U.S. House of Representatives
 Witness Disclosure Requirement - "Truth in Testimony"
 Required by House Rule XI, Clause 2(g)

1. Your Name: <u>Dr. Carolyn Duran</u>		
2. Are you testifying on behalf of the Federal, or a State or local government entity?	Yes	No <input checked="" type="checkbox"/>
3. Are you testifying on behalf of an entity that is not a government entity?	<input checked="" type="checkbox"/>	No
4. Other than yourself, please list which entity or entities you are representing: <u>Intel Corporation</u>		
5. Please list any Federal grants or contracts (including subgrants or subcontracts) that <u>you or the entity you represent have received</u> on or after October 1, 2011:		
6. If your answer to the question in item 3 in this form is "yes," please describe your position or representational capacity with the entity or entities you are representing: <u>Director of Supply Chain Ramp and Regulations</u>		
7. If your answer to the question in item 3 is "yes," do any of the entities disclosed in item 4 have parent organizations, subsidiaries, or partnerships that you are not representing in your testimony?	Yes	No <input checked="" type="checkbox"/>
8. If the answer to the question in item 3 is "yes," please list any Federal grants or contracts (including subgrants or subcontracts) that were received by the entities listed under the question in item 4 on or after October 1, 2011, that exceed 10 percent of the revenue of the entities in the year received, including the source and amount of each grant or contract to be listed:		
9. Please attach your curriculum vitae to your completed disclosure form.		

Signature: _____



Date: _____

3/12/14

Carolyn R. Duran, PhD

Work: 971.214.4744 carolyn.r.duran@intel.com

Leadership Summary

- Demonstrates complex problem solving skills in the areas of commodities, product and process research, manufacturing, leading to five patent awards and multiple internal awards.
- Able to take on complex problems, reduce ambiguity, determine the true goal, and then develop and execute strategies to meet that goal.
- Managed teams of >25 individuals and responsible for multi-million dollar budgets and contract negotiations.
- Excels at communicating complex subjects at a level commensurate with the audience, including peers, subordinates, upper management, and external organizations. Able to bridge both commercial and technical environments.
- Long history of Board service at the local and national levels.
- Developed relationships with critical governmental and external organizations as needed to drive Intel programs forward, including environmental agencies within the US and China, The US State Department, Indonesian Ministry of Trade, the London Bullion Market Association, The World Gold Council, and leaders within the tin and gold industries.

Professional Experience

Apr 1998 – Present: Intel Corporation, Hillsboro, OR

Director, Supply Chain Ramp and Regulations; Conflict Minerals Program Manager (Jul 2007 - present)

- Technical advisor on chemical regulatory issues in the supply line, including representing Intel with the EPA, EU, and China MEP. Testified on behalf of downstream scientific users of helium in the Senate Subcommittee for Energy and Natural Resources in May 2013.
- Primary technical expert and external spokesperson for Intel's Conflict Minerals Program. Led worldwide program to deliver the first conflict-free microprocessors to market.
- Led commodity teams responsible for developing leading edge lithography and thin film materials to meet Intel technology requirements; responsible for multi-million dollar contract negotiations.
- Own ensuring all chemicals used within Intel's global manufacturing facilities meet regulatory requirements within the supply chain.
- Ensure risk mitigation for >300 materials used in new fab technologies to ensure a smooth transition from development to high volume manufacturing.

Technology Development (Apr 1998 – Jul 2007)

- Wafer level test development Manager
 - Managed a team of experienced engineers and technicians supporting process development for Intel's logic and chipset future technologies. Set strategic and tactical objectives for the area.
 - Led technology development for three concurrent process technologies, and ensured that technical gaps were identified and closed, resources were allocated at the right level, and projects were prioritized to maximize efficiency without jeopardizing quality.
 - Demonstrated educated risk taking by leading a team to develop, for the first time in >7 years, a novel method for wafer level testing that provided unique capability at reduced cost of ownership.
- Thin films Area Manager, Storage Technologies Group
 - Reset and executed a materials selection strategy to enable a program decision within 6mos. of joining the org.
 - Led a team of >25 experienced engineers and technicians supporting thin film process development for an advanced memory program.
 - Developed key enabling technologies in thin film deposition and chemical mechanical planarization.
 - Managed equipment operations of six distinct high-volume manufacturing toolsets (15 tools), improved availability and drove down yield-limiting defects in each area.
 - Provided technical expertise to solve complex problems in both fundamental materials science (metals, metal oxides and metal nitrides) and process integration.
 - Co-author of one patent related to process integration of a ferroelectric polymer memory.
- Individual contributor, Components Research/Portland Technology Development

- Developed and communicated key technology needs to external suppliers within the US, Asia, and Europe. Drove innovative research projects with external suppliers across multiple functional areas within microprocessor development.
- Responsible for process development, new equipment selection and qualification, and sustaining module operations for the copper barrier/seed process.
- Developed advanced copper and barrier material processes for three generations of interconnect technologies, including a novel solution to meet 90nm design rules for electromigration resistance. Co-author of four patents.

Sep 1993 – Mar 1998 Northwestern University Evanston, IL

Research Assistant, Department of Materials Science and Engineering

- Extensive process development of metalorganic chemical vapor deposition of epitaxial high temperature superconducting thin films.

Feb 1993 – Sep 1993, Pennsylvania Metallurgical, Inc, Bethlehem, PA

Process Engineer

- Optimized movement of material through available heat treatment furnaces to maximize loading and throughput. Utilized technical expertise in metals to determine appropriate processing conditions.
- Developed the company's first employee manual to standardize people management practices.

Jan – May 1991, Aug – Dec 1991, May – Aug 1992, GE Aircraft Engines, Evendale, OH

Co-op student

- Conducted materials selection studies to select a graphite epoxy composite for use in the front engine blade of the GE90 commercial engine.
- Ran failure analysis testing on high temperature metal alloys to determine root cause of failed production parts.

Selected Community and Board Service

- Board of Directors for Portland Habilitation Center Northwest, Portland, OR (2005-present)
 - Held multiple leadership positions on the board, including Board Chair (Sep 2006 - Sep 2008)
 - Building Committee Chair (Sep 2005 -Sep 2007): Responsible for the development of an innovative solar powered >\$8M manufacturing facility.
- Active member of multiple advisory boards for Materials Science and Engineering (2003 - present)
 - Universities include UC Berkeley, the Univ. of Michigan, Carnegie Mellon, and Northwestern
- Government Affairs Committee of the Materials Research Society (2009 - present)
- ABET Program evaluator for Materials Science and Engineering (2008-present) Responsible for accreditation evaluations for university programs.
- Dean's Leadership Council, CIT, Carnegie Mellon University (2004-2006)

External Honors and Awards

- National Science Foundation Fellowship recipient 1994-1996
- Graduate School University Fellowship 1993/94
- Invited Speaker Engagements
 - Keynote speaker, Willamette Valley National Engineers Week Banquet, Feb 2007
 - University of Oregon Graduate Women in Science Seminar, Oct 2004.
 - Center for Silicon System Implementation Seminar Series, Carnegie Mellon University, Apr 2004.
 - Hewlett-Packard Corporation, Nov 2003.
 - University of Oregon Materials Science Institute Retreat, Sept 2003.
 - Electrical and Computer Engineering Seminar Series, Carnegie Mellon University, Feb 2003.

Education

1998 – PhD in Materials Science and Engineering, Northwestern University, Evanston, IL

1992 – BS in Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA