

W.R. (Bill) Byrd, P.E. President

Executive Summary

A Summa Cum Laude graduate of the Georgia Institute of Technology, Mr. Byrd enjoys a solid reputation for working with the public, corporate executives, legal representatives, and regulatory agencies to resolve complex regulatory, integrity management, safety, and compliance management issues. He is a professional engineer and regulatory expert, combining exceptional analytical and communication skills with a broad background in engineering, operations, management, economics, and regulatory affairs, yielding excellent professional judgment and problem-solving capabilities that can be applied to corporate-level issues. He conducts multi-day training sessions on pipeline topics several times a year for both public and private audiences. He is a widely respected public speaker and is routinely called upon to make presentations concerning energy pipeline issues to industry associations and other groups at the national and international level including Canada, Brazil, and India. He is the founder and President of RCP Inc., a professional engineering and regulatory consulting firm serving more than 100 global clients throughout the energy pipeline industry.

Accomplishments/Experience

Mr. Byrd's accomplishments and experience include:

- Chairing the 2020 International Pipeline Conference, the largest and most prestigious energy pipeline conference of its type in the world, drawing more than 1,400 delegates and 350+ peer-reviewed technical papers presenting cutting-edge research for all aspects of the energy pipeline industry.
- Serving on the Board of Directors of the Pipeline Research Council International (PRCI) and on its Technology Development Center oversight committee.
- Being selected and serving as a technically competent and independent expert Peer Review Panelist for pipeline safety research funded by PHMSA's Pipeline Safety Research and Development (R&D) Program.
- Chairing the executive committee of the Pipeline Systems Division (PSD) of ASME (American Society of Mechanical Engineers), an engineering society that is recognized worldwide and whose standards are incorporated into regulations by countless federal, state, and local jurisdictions. Current serving as a Senator of PSD.
- Chairing the Safety Engineering and Risk Analysis Division (SERAD) of ASME.
- Chairing tracks on Safety Engineering, Risk Assessment, and Reliability Methods at three International Mechanical Engineering Congress and Exhibitions (IMECE), attended by thousands of engineering and risk management professionals from around the world.



- Serving as the consulting expert to the API / AOPL Pipeline Performance Excellence Team, a
 permanent team composed of pipeline executives dedicated to improving the safety of the
 liquid transmission pipeline industry.
- Serving as the consulting expert to the API / AOPL Data Mining Team, a permanent team that analyzes incident root causes and trends in the hazardous liquids pipeline industry and identifies opportunities for further investigation and improvement initiatives.
- Serving on the Interstate Natural Gas Association of America (INGAA) Foundation to identify, prioritize, and fund research projects for the gas transmission industry.
- Serving as a consulting expert during the first criminal prosecution under the Pipeline Safety Act.
- Serving as an expert witness during the first class action lawsuit brought against a pipeline company under the citizen suit provisions of the Pipeline Safety Act.
- Serving as an expert witness / consulting expert on several other pipeline accidents and lawsuits, including those of national significance.
- Chairing the Offshore Corrosion Surveillance Subcommittee for a major pipeline company.
- Facilitating the development and implementation of a corrosion control strategy for oil and gas operations on the North Slope of Alaska, during several congressional investigations.
- Developing solutions for the following: H2S contingency planning in large sour oil and gas production areas, produced water toxicity issues on the Outer Continental Shelf, NORM sampling and testing procedures for oil field wastes, and asbestos exposure issues.

Associations/Affiliations

- American Gas Association
- American Petroleum Institute
- American Society of Mechanical Engineers
- Houston Pipeliners Association
- Association for Materials Protection and Performance (previously NACE)
- Southern Gas Association
- Texas Gas Association

Education

M.S., Mechanical Engineering – Honors, Georgia Institute of Technology, 1982

B.S., Mechanical Engineering – Summa Cum Laude, Georgia Institute of Technology, 1981

Professional Registrations

- Professional Engineer, State of Texas
- Professional Engineer, State of Louisiana
- Professional Engineer, State of Mississippi



- Professional Engineer, State of Alabama
- Professional Member Association for Materials Protection and Performance

Honors and Awards

- Graduate Fellowship Georgia Power Research Laboratory
- Pi Tau Sigma
- Tau Beta Pi
- Gamma Beta Phi
- Phi Kappa Phi
- Certificate of Appreciation U. S. Coast Guard

Presentations and Publications

(excluding in-house training sessions)

Byrd, W. R., "PSMS Beginning the Journey: How to get started" presented at the API Webinar on May 21, 2019

Byrd, W. R., "Management Systems and Goldilocks: How Much Process Rigor Is Just Right for Your PSMS?" presented at the AGA Operations Conference in Nashville, TN on April 2, 2019

Byrd, W. R., "Current trends in pipeline industry performance data" presented at the API Pipeline Conference in Phoenix, AZ on April 10, 2019

Byrd, W. R., "Teaching and Engaging with the 'unpersuadables' - an experiment – Houston Public Training" presented at the Pipeline Safety Trust Conference in New Orleans, LA on October 18, 2018

Byrd, W. R., "API RP 1173 Evaluation Tool" presented at the Pipeline SMS Evaluation Tool webinar hosted by API on June 26, 2018

Byrd, W. R., "API RP 1173 Implementation Tools" presented at the Pipeline SMS Tools webinar hosted by API on February 27, 2018

Byrd, W. R., "Implementation Tools for API RP 1173" presented at the American Gas Association Pipeline Safety Management Systems workshop in San Diego, CA February 1, 2018

Byrd, W. R., "PSMS Conformance Audit Tool" presented at the API / AOPL Liquid Operators Pipeline Safety Management System Conformance Workshop in Houston, TX June 13, 2017

Byrd, W. R., "Implementation Solutions for Pipeline Safety Management Systems", presented at the American Gas Association Pipeline Safety Management Systems Workshop in Jacksonville, FL April 12, 2017

Byrd, W. R., "Trends in Incidents, and Food for Thought", presented at the API / AOPL Pipeline Information Exchange (PIX) meeting in Houston, TX October 11, 2016



Presentations and Publications Cont'd

Byrd, W. R., "Excavation Damage and Near Misses: What Do the Data Tell Us?", presented at the API Damage Prevention Workshop in Houston, TX, May 26, 2016

Byrd, W. R., "Liquid Transmission Data and Strategic Initiatives", presented at the API Pipeline Conference in Carlsbad, CA, April 6, 2016

Byrd, W. R., "Industry Implementation of Pipeline SMS – Industry's Journey", Panel at the API Pipeline Conference in Carlsbad, CA, April 5, 2016

Byrd, W. R., "Pipeline Safety Management System Implementation Tools", presented at the API Pipeline SMS workshop in Houston February 16, 2016 and April 26, 2016

Byrd, W. R., "Cost / Benefit Analysis: A Skeptic's Perspective" presented to the Pipeline Safety Trust annual meeting in New Orleans, LA, November 20, 2015.

Byrd, W. R., "Introduction to API RP 1173: Pipeline Safety Management Systems" presented to the Texas Gas Association in Galveston, TX, June 8, 2015.

Byrd, W. R., Brunt, D.J., "Changes to PHMSA Rules Affect Wide Range of Inspections, Reports" Pipeline & Gas Journal, Vol. No. 242, Number 6, p. 51, June 2015.

Byrd, W. R., Wylie, M.G., "Site-Specific Quantitative Pipeline Risk Analysis Using Monte Carlo Methods" Proceedings of the 2014 10th International Pipeline Conference, Calgary, Alberta, Canada, Paper IPC2014-33171.

Byrd, W. R., "PHMSA Shifts Emphasis Toward Preventing Highest Risk Events" Pipeline & Gas Journal, Vol. No. 241, Number 6, p. 55, June 2014.

Byrd, W. R., "Site Risk Analysis Using Monte Carlo Methods" presented to the Interstate Natural Gas Association of America, Safety Committee; Colorado Springs, CO, May 7, 2014.

Byrd, W. R., Decker, L., "Pipeline Pressure Testing" course for the ASME International Petroleum Technology Institute, Denver, CO, April 14, 2014.

Byrd, W. R., "The problems that come from people focusing too much on Consequences" presented at the Pipeline Safety Trust Conference; New Orleans, LA, November 21, 2013.

Byrd, W. R., "Introduction to Pipeline Regulations in the USA" presented at the Rio Pipeline Conference 2013; Rio de Janeiro, Brazil, September 26, 2013.

Keynote Speaker, "Extreme Value Risk Analysis" ASME Indian Oil and Gas Pipeline Conference 2013, Jaipur, India, February 1, 2013.

Byrd, W. R., Instructor for the Introduction to DOT 192 & 195 Pipeline Regulations, presented at the DOT Pipeline Compliance Workshop, Houston, TX, November 6 – 8, 2012.

Chair, ASME Pipeline Systems Division Awards Ceremony in Calgary, Alberta, Canada, September 25, 2012.



Presentations and Publications Cont'd

Byrd, W. R., "Improving System Integrity for Energy Pipelines in the 21st Century" presented at the Chevron NDE & Pipeline Forum, Houston, TX, March 5, 2012; the NACE Tulsa Section Meeting, Tulsa, OK, April 23, 2012; and the NACE Western Area Conference in Chicago, IL, August 29, 2012.

Byrd, W. R., "Regulatory Developments for Pipeline Recordkeeping" presented at the PODS (Pipeline Open Data Standard) User Conference, Houston, TX, October 12, 2011.

Moderator, "Moving the Industry Forward" panel at the Pipeline Opportunities Conference, Houston, TX, April 19, 2011, with the Executive Director of the Pipeline Safety Trust, the Director of Program Development for PHMSA, the Executive Director of the INGAA Foundation, and the Sr. VP / COO of AGA.

Byrd, W. R., "Common Challenges in Preparing for an Integrated Inspection" presented at the API Pipeline Conference, San Antonio, TX, April 12, 2011.

Byrd, W. R., "Potential Sources of Error in GPS Use for One Call Purposes" Damage Prevention Professional Magazine, p. 26, Vol. 2, No. 2, Spring 2011.

Byrd, W. R., "SPCC and OPA-90 Requirements for Liquid Pipelines" presented at the TGA / PHMSA Liquid Pipeline Workshop, Corpus Christi, TX, June 17, 2010.

Byrd, W. R., "EPA Issues New Spill Prevention Regulations" American Gas Magazine, p.14, May 2010.

Byrd, W. R., "Control Room Management for DOT Pipeline Operators" presented at the MASH Conference, San Antonio, TX, April 28, 2010.

Byrd, W. R., "Oil Spill Prevention Control and Countermeasure (SPCC) Requirements for Gas Pipeline Operators" webinar sponsored by the American Gas Association, March 9, 2010; also presented to the Southern Gas Association; Kansas City, KS, June 10, 2010; also presented to the Texas Gas Association; Corpus Christi, TX, June 15, 2010; also presented at the US DOT / PHMSA regulations workshop; Corpus Christi, TX, June 17, 2010.

Byrd, W. R., "Avoiding Pitfalls Using GPS Data for Damage Prevention" presented at the CGA Excavation Safety Conference & Expo; San Diego, CA, March 4, 2010.

Byrd, W. R., "SPCC Rule Revisions Affect Gas Processing Facilities" Gas Processors Report, Vol. 28 Issue 8, p.1, February 25, 2010.

Byrd, W. R., "DOT Existing Regulations for Leak Detection" presented at the Siemens Technology Conference, Houston, TX, February 23, 2010.

Byrd, W. R., "The New SPCC Rule: Are You In or Out?" The TIPRO Target, Vol. 13. No. 04, p.6, February 19, 2010.

Byrd, W. R., "New Control Room Management Regulations Require Structured Management Approach" Pipeline & Gas Journal, February, 2010.



Presentations and Publications Cont'd

Byrd, W. R., "Offshore Pipeline Construction and Operation" presented to the Select Policy Council on Strategic & Economic Planning of the Florida House of Representatives, Tallahassee, FL, February 4, 2010.

Byrd, W. R., "API, AOPL Working to Standardize GPS System" Oil & Gas Journal, November 9, 2009.

Byrd, W. R., "Methods for Complying with Pipeline Leak Detection and Monitoring Regulations" presented at the Pipeline Leak Detection & Monitoring Conference, Houston, TX, October 28, 2009.

Byrd, W. R., "Pipeline Integrity Management Rules Affecting Gathering, Transmission, and Distribution Pipelines" presented at the GITA Oil & Gas Conference, End to End: Risk and Integrity Management seminar, Houston, TX, September 14, 2009.

Byrd, W. R., "New and Proposed Pipeline Regulations 2-2009" presented at the OQSG User Conference, Houston, TX, February 26, 2009.

Byrd, W. R., Palmer, K., Garrett, J., "One-call System Addresses Offshore Damage Prevention" Oil & Gas Journal, May 4, 2009.

Byrd, W. R., "Best Practices in Damage Prevention for Parallel Construction Projects" presented at the API Pipeline Conference, Fort Worth, TX, April 21, 2009.

Byrd, W. R., Palmer, K., "Company Name Change Requires Diligent Execution" Oil & Gas Journal, March 16, 2009.

Byrd, W. R., "Overview of Shale-Gas Pipeline Development Activities" presented at the Barnett Shale Expo, Fort Worth, TX, March 11, 2009 and the Haynesville Shale Expo, Shreveport, LA, November 21, 2008.

Byrd, W. R., "Best Practices in Damage Prevention for Parallel Construction Projects" presented at the 7th International Pipeline Conference, Calgary, Alberta, Canada, October 1, 2008.

Byrd, W. R., "Risk Factors for Urban Shale Gas Pipeline Development" presented to the Mayor's Shale Gas Development Task Force, Fort Worth, TX, August 7, 2008.

Byrd, W. R., "Damage Prevention Workshop Findings and Recommendations" presented at the API Pipeline Conference, Orlando, FL, April 8, 2008.

Byrd, W. R., "Management Systems and Safety Culture Survey Findings and Recommendations" presented at the Liquid Pipeline Leadership meeting, Squaw Valley, CA, June 25, 2007.

Byrd, W. R., "GIS Applications for DOT Regulatory Compliance" presented at <u>GeoGathering 2007</u>, Estes Park, CO, May 2007.

Byrd, W. R., "Risk Management and Integrity Regulations for Gas and Liquid Pipelines" presented at the GITA Oil & Gas Conference, Houston, TX, September 18, 2006.



Presentations and Publications Cont'd

Byrd, W. R., "Overview of the new Gas Gathering Regulations" presented at the DOT Pipeline Compliance Workshop, Houston, TX, May 10, 2006.

Byrd, W. R., "Introduction to DOT Pipeline Regulations" presented at the DOT Pipeline Compliance Workshop, Houston, TX, February 22, 2006.

Byrd, W. R., "Regulatory Developments for Pipeline Integrity Management" presented at the Geospatial Information Technology Association's 14th Annual GIS for Oil & Gas Conference, JW Marriott Hotel, Houston, TX, September 19, 2005.

Byrd, W. R., "Introduction to DOT Pipeline Regulations; Texas State Pipeline Regulations; Louisiana State Pipeline Regulations" presented at the DOT Pipeline Compliance Workshop, Houston, TX, February 22 – 24, 2005.

Byrd, W. R., McCoy, R.G., Wint, D., "A Success Guide for Pipeline Integrity Management" Pipeline Gas & Journal, November 2004.

Byrd, W. R., Swanstrom, B., "Midstream M&A Transactions: What you don't know about regulatory due-diligence CAN hurt you!" Locke, Liddell, and Sapp LLP presentation for CLE credits, September 23, 2004.

Byrd, W. R., "Associated Regulatory Compliance Issues for Integrity Management" presented at the DOT Pipeline Compliance Workshop, Houston, TX, September 22, 2004.

Byrd, W. R., "Introduction to DOT Pipeline Regulations" presented at the DOT Pipeline Compliance Workshop, Houston, TX, April 6, 2004.

Byrd, W. R., "Current Regulatory Challenges for DOT Pipeline Operators" presented at the 9th annual River City Safety, Health, Security, and Environmental Conference and Exposition, Baton Rouge, LA, August 20, 2003.

Byrd, W. R., "Introduction to DOT Pipeline Regulations" presented at the DOT Pipeline Compliance Workshop, Houston, TX, July 30-31, 2003.

Byrd, W. R., "Learnings from the Olympic Pipeline Incident" in-house training for Portland Pipeline, Portland, ME, April 2, 2003.

Byrd, W. R., "DOT Pipeline Regulatory Developments" presented at the US Oil and Gas Association Conference, Jackson, MS, October 30, 2002.

Byrd, W. R., "DOT Pipeline Training Regulations" presented at the API Training and Development Conference, Galveston, TX, October 25, 2002.

Byrd, W. R., "Introduction to DOT Pipeline Regulations" presented at the DOT Pipeline Compliance Workshop, March 21-22, 2002.

Byrd, W. R., "State Pipeline Regulatory Initiatives" presented at the US Oil and Gas Association annual meeting, Jackson, MS, October 10, 2001.



Presentations and Publications Cont'd

Byrd, W. R., "State Pipeline Regulatory Initiatives" presented at the Southwest Gas Association annual meeting, Phoenix, AZ, August 29, 2001.

Byrd, W. R., "OPA 90 Planning Requirements for US Coast Guard Regulated Facilities" presented at the US Coast Guard compliance workshop; New Orleans, LA, August 16, 2001.

Byrd, W. R., "Operator Qualification Program Requirements / Overview" presented at the Greater Baton Rouge Industrial Managers Association, March 28, 2001, and the Lake Area Industry Alliance, May 8, 2001.

Byrd, W. R., "Pipeline Integrity Management Program Development / Risk Analysis" presented at the Pipeline Integrity Management Workshop, March 6-8, 2001.

Byrd, W. R., "Operator Qualification - Program Management Issues" presented at the DOT Pipeline Operator Qualification Workshop, November 14-15, 2000.

Byrd, W. R., "U.S. Regulatory Scheme for Pipeline Safety" presented to members of the Russian Duma during a state visit, June 22, 2000.

Byrd, W. R., "Operator Qualification Issues and Industry Resources" presented at the DOT Pipeline Compliance Workshop, May 18, 2000.

Byrd, W. R., "New and Proposed Rule Changes for DOT Pipelines" presented at the DOT Pipeline Compliance Workshop, May 17, 2000.

Byrd, W. R., "Introduction to DOT Pipeline Regulations" presented at the DOT Pipeline Compliance Workshop, May 16, 2000.

Byrd, W. R., "Electronic Contingency Plan Team Status, Findings, and Path Forward" presented at the EPA / USCG Region VI Response Team meeting, January 19, 2000.

Byrd, W. R., "Pipeline Legal / Regulatory Requirements for Community Relations" presented at the 1999 API Pipeline Conference, April 21, 1999.

Byrd, W. R., Kasper, S.H., "Proposed USCG Hazmat Spill Planning Rule" presented at the ILTA Southern Region Spring Meeting, April 27, 1999.

Byrd, W. R., "DOT Inspections - Current Expectations" Presented at the DOT Pipeline Compliance Workshops, September, 1998.

Byrd, W. R., "Plan Integration Subcommittee: Objectives and Plans" Presented at the New Orleans Area Committee Meeting, July 30, 1998.

Byrd, W. R., "Relief Settings and Maintenance Activities" Presented at the Coast Guard Compliance Workshops, May, 1998.

Byrd, W. R., "...And Now a Word from Washington" Presented at the Louisiana Pipeliners Association Meeting, September 9, 1997.



Presentations and Publications Cont'd

Byrd, W. R., Brunell, R.A., "'Person in Charge' Training: Current Compliance Issues" presented at the Independent Liquid Terminals Association Conference, June 10, 1997.

Byrd, W. R., "Compliance Guidance for U.S. Department of Transportation Pipeline Regulations" CMA No. 601001F, Chemical Manufacturers Association.

Byrd, W. R., "Training Module for U.S. Department of Transportation Pipeline Regulations" CMA No. 601002F, Chemical Manufacturers Association.

Byrd, W. R., "Natural Resource Damage Assessments: Texas Overview, Louisiana Outlook" presented at SPE Environmental Issues Forum, February 17, 1997 and the ELIRT Regional Training Workshop, November 20-21, 1996.

Hall, S.E., Byrd, W. R., Singh, S., "National Response Team's 'One Plan' Guidance: A Preferable Alternative?" November 1996.

Byrd, W. R., Brunell, R.A., "New Developments in USCG Regulations for Dock Facilities" presented at RCP's U.S. Coast Guard Regulatory Seminar, August 8, 1996.

Byrd, W. R., Shelton, T.C., "DOT Pipelines: Preparing for the Post-Accident Investigation" January 9, 1997.

Byrd, W. R., "Pipeline Risk Management Programs" June 20-21, 1996.

Byrd, W. R., Felder, R.B., "How OPS Regulations Affect the Chemical Industry" presented at Chemical Manufacturers Association Pipeline Compliance Forum, October 24, 1996.

Byrd, W. R., Frey, D., Bertges, W., "DOT Pipeline Spill Planning Requirements" presented at Regulated Pipeline Compliance Seminar, February 29, 1996.

Byrd, W. R., Wheeler, W.H., "Emergency Planning for H₂S Releases: Utilizing Shelter in Place and Interagency Drills" SPE # 25979, presented at SPE/EPA Exploration & Production Environmental Conference, 1993.

Byrd, W. R., South, B.C., Herries, P.E., "Shelter in Place: The Technical Basis for Its Use in Emergency Planning" SPE # 25980, presented at SPE/EPA Exploration & Production Environmental Conference, 1993.