

*** Papers & Presentations ***

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Documents, papers and presentations prepared and/or presented as a function of work with **W. F. Newell & Associates, Inc.** or **Euroweld, Ltd.** include:

- “The Benefits of Preheating Weldments”, AWS Weld Cracking Conference, Denver, CO, April 15-16, 2014.
- “Preheat, PWHT, Codes, Practices & Documentation” Seminar for TransAlta & Quality Control Council of Canada, Stony Plain, Alberta, Canada, April 1, 2014.
- " 16-8-2 Utilizes Controlled Residual Elements to Enhance and Maintain Elevated Temperature Creep Strength", AWS Stainless Steel Conference, Philadelphia, PA, March 25-26, 2014.
- “Dealing with Challenges Presented by Dissimilar Welds”, International Pressure Equipment Inspection Association Conference, Banff, Alberta, Canada February 19-21, 2014.
- “Preheat – Misunderstood, Often Overlooked and Sometimes Misapplied”, AWS Power Conference, New Orleans, LA, January 2014.
- Panel Discussion, Participant. AWS/German Welding Society. AWS Headquarters, Miami, FL.
- “Challenges Meeting Temper Embrittlement Criteria with Welding Consumables”, Euroweld-Bohler Technical Seminar, LaPorte, Texas, December 10, 2013
- “Challenges Encountered with Post Weld Heat Treatment of Dissimilar Weldments”, AWS/Fabtech, Chicago, IL, November 2013.
- “Stainless and Heat Resisting Steels” - *YOU ARE NOW THE WELDING ENGINEER!*, AWS Fabtech, Chicago, IL, November 19-20, 2013
- “Qualifying Welding Procedures for Repair of Components in High Temperature Service”; 7th International EPRI Conference on Advanced Materials Technology for Fossil Plants; October 22-25, 2013; Kona, HI.
- “Welding and PWHT of P91 Steels”; Valve Manufacturers Association of America, 2013 Technical Seminar & Exhibition; March 7-8, 2013; Charlotte, NC.
- “Qualifying Repairs for High Temperature Service”; IIW International Conference 2012, Welding for Repair and Life Extension of Plants and Infrastructure, Session 7, July 13, 2012; Denver, CO.
- “The Importance of Composition and Wire Processing for Automated or Orbital GTAW”; Welding and Repair Technology for Power Plants: 10th International EPRI Conferenc; June 26-29, Marriott Marco Island Resort, Marco Island, FL.
- “Field Welds and Special Considerations”; SuperheatFGH Workshop; Welding and Fabrication Technology for New Power Plants and Components: Second International EPRI; June 22-24, 2012; Orlando, FL.

- “Delta Ferrite Considerations in Stainless Steel Welding”; 16th Annual International Pressure Equipment Integrity Association Conference. February 29-March 2, 2012; Banff, Alberta, Canada.
- “WELDING AND POST-WELDING TREATMENT OF MODERN DUPLEX STAINLESS STEELS”; Welding Research Council Conference, October 4-6, 2011; Houston, TX.
- “Welding and Post Weld Heat Treatment of P91 Steels.” 15th Annual International Pressure Equipment Integrity Association Conference. March 2- 4th, 2011; Banff, Alberta, Canada.
- “Flux Cored Wires for High Integrity Applications”, 6th International Conference on Advances in Materials Technology for Fossil Power Plants; August 31- September 3, 2010; LaFonda Santa Fe; Santa Fe, NM.
- “Dissimilar Metal Welding Challenges when Joining Creep Strength-Enhanced Ferritic Steels to Other Alloy Families”; 2010 9th International EPRI Conference on Welding and Repair Technology for Power Plants, June 23–25, 2010, Sanibel Harbour Marriott Resort & Spa, Fort Myers, FL.
- “Strip Cladding Workshop”; December 2009.
- “Supervising P91 Repairs”, 2009 HRSG USER’S GROUP, Pre-Conference Seminar, April 6, 2009, Jacksonville, FL
- “Achieving Good Production Weld Deposition Rates with High Alloy Steels and Weld Overlays”, Welding Productivity Seminar, Hudson Engineering, Ltd.; 23-24 April 2009, Calgary, Alberta, Canada
- “16-8-2 and Other Weld Metal Compositions that Utilize Controlled Residual Elements to Enhance and Maintain Elevated Temperature Creep Strength”, EPRI Fifth International Conference on Advances in Materials Technology for Fossil Power Plants, 3-5 October 2008, Marco Island, FL.
- “16-8-2 History, Production and Use”; John J. Oley, Charles W. Patrick, Fluor Corporation, USA; William F. Newell, Jr., PE, IWE, Euroweld, Ltd., *Stainless Steel World*, October 2007.
- “Challenges Meeting Temper Embrittlement Criteria with Welding Consumables”; 11th Annual International Pressure Equipment Integrity Association Conference. February 14-17, 2007; Banff, Alberta, Canada.
- “SAW Temperbead Techniques for Rotor Journal Repair”, Michael J. Jirinec & Robert E. Kilroy, Jr., Alstom Power, Inc.; Richmond, VA; Gang “Joe” Zhou, PhD., Alstom Material Technology Center; Chattanooga, TN; William F. Newell, Jr., PE, IWE, Euroweld, Ltd.; Mooresville, NC & James W. “Buster” Hales Specialty Welding & Machining; Harrison, TN; 7th International EPRI Conference on Welding and Repair Technology for Power Plants; June 21-23, 2006; Ponte Vedra Beach, FL
- “Results of Recent Field Experience and Metallurgical Studies of P91”, HRSG Users Group, P91/T91 Workshop, Steam Plant Experience With High-Chrome Alloys, Sheraton Society Hill, Philadelphia, PA, July 6-7, 2005
- “Guideline for Welding P(T) 91”, May 2004.
- “Properties and Fabrication Experience with Submerged Arc Welding of P91 Piping Systems”, Fourth International EPRI Conference, Welding Repair Technology for Power Plants, June 2000, Marco Island, FL.

- "Underwater Welding and Cutting Guidelines", EPRI Project RP3232-1.
- "Welding Guidelines for the Repair of Nuclear Service Water Systems," EPRI Project RP3232-1.
- "Advances in P(T) 91 Welding Using Flux and Metal Cored Wires", Welding and Repair Technology Conference, June 9-12, 1998, Scottsdale, AZ.
- "NOREM Applications Guidelines", EPRI TR-107231, Final Report, December 1996.
- "In Situ State-of-the-Art Valve Welding Repair Guide", EPRI TR-105852, December 1996.
- "Weld Overlay Repair of Erosion-Corrosion Mock-up Testing", EPRI Repair and Replacement Applications Program, February 1995. (co-author)
- "Internal-Access Weld Repair for Leakage in BWR CRD Penetrations", EPRI Repair and Replacement Applications Program, January 1995. (co-author)
- "State-of-the-Art Weld Repair Technology for High Temperature and Pressure Parts Repair Guideline", EPRI TR-103592, Research Project 3484-1, June 1994. (co-author)
- "Repair Experience at Indian Point Unit No. 2," December 1991.
- "Large Steam Turbine Repair: A Survey," EPRI NP-7385; Project 1929-15, July 1991.
- "Application of Alternative Materials for Pipe Replacement," 1987 Annual North American Welding Research Seminar: The Influence of New Materials Developments on Weldability, September 1987.
- "Assessment of Stress Improvement Techniques for Nozzle Safe-End Welds at the Perry Nuclear Power Plant." (co-author)
- "Weldability Evaluation of the Original Stairway Support Column for the *STATUE OF LIBERTY*", January 14, 1986.
- "Studies on Weld Overlay for Repair," Proceedings: Second Seminar on Countermeasures for Pipe Cracking in BWRs, EPRI NP-3684-SR, Volume 2., Special Report, September 1984.
- "Nuclear Grade Stainless Steel Procurement, Manufacturing, and Fabrication Guidelines," Volumes I and II, Document # 84-MG-18. 1984 (co-author)
- T105 and T305-1 Annual Progress Reports. (co-author)
- "Practical Considerations for the Repair of Systems Damaged by Erosion Corrosion". (co-author)
- "Lessons Learned, BWR Reactor Recirculation Piping Replacements". (co-author)
- "Resolution of Post-MSIP Ultrasonic Indications in the Nozzle-To-Safe-End Welds, System-043, at Philadelphia Electric Company's Limerick Unit 2." March 1983.

AWS Welding Journal Articles

- "Welding and Postweld Heat Treatment of P91 Steels", *Welding Journal*, April 2010.

- “P91 and Beyond”; Coleman, K. K. and Newell, Jr., W. F.; *Welding Journal*, August 2007.
- “Filler Metal Procurement Made Easy”, *Welding Journal*, April 2001.
- “Hardfacing and Surfacing Using the SAW/ESW Strip Cladding Process”, *Welding Journal*, February 1996.
- “Understanding and Using Carbon Equivalent Formulas”, *Welding Journal*, September 1995.

AWS Conference Presentations

Fabtech 2013 – So You’re the New Welding Engineer; November 19 - 20, 2013

- “Stainless and Heat Resisting Steels”.

Fabtech 2013 – Welding Dissimilar Metals; November 18, 2013

- “Challenges Encountered with Post Weld Heat Treatment of Dissimilar Weldments”.

8th Annual AWS Fall Technical Seminar - Advances in the Welding and Heat Treatment of Carbon Steels & Alloy Grades; September 27, 2013; Edmonton, AB

- “Problems, Causes & Solutions with Various Alloys - A Collection of Case Studies”.

Codes and Standards; July 16-17, 2013; Orlando, FL

- “Weld Metal Procurement for Nuclear Components”.

AWS, D10 Sponsored Welding Summit Workshop; May 9-10, 2013; Miami, FL (AWS Headquarters)

- Keynote Address: “Where We’ve Been... and, Where We Are”.
- “Cost of Quality, Alberta – A Success Story”.

9th Weld Cracking; March 26-27, 2013; Las Vegas, NV

- “Fabrication Operations and Procedures That Promote Cracking in Selected Stainless Steels”.

AWS/GSI Conference on U.S. and European Welding Standards: Structural, Pressure Piping, Pipelines, Railroad, NDT; October 22-23, 2012; Munich, Germany

- “Welding Pressure Vessels and Piping to the ASME Code”.

The Energy Boom – Get on the Band Wagon; June 12-13, 2012; San Diego, CA

- “Preheat – Misunderstood, Often Overlooked and Sometimes Misapplied”.

Automated Welding; March 6-7, 2012; Orlando, FL

- “Weld Wire Cleanliness – *How Clean is Clean?*”.

Prevention of Weld Failures, June 14-15, 2011-New Orleans, LA

- “The Heat-Affected Zone in Dissimilar Metal Welding”.
- “EPRI P87, A New Filler Material for Dissimilar Metal Welds”.

Fabtech 2011; 8th Conference on Weld Cracking, November 14-17, 2011

- “Crack Avoidance in Creep Strength-Enhanced Ferritic Steels”.

Welding Chrome Moly Steels Conference, August 17, 2011; Charlotte, NC

- “P91 and Beyond”.

Corrosion Conference, August 16, 2011, Charlotte, NC

- “Applications for 16-8-2 Stainless Steel Weld Metal”.

Fabtech 2010

- Roger Swain, Bill Newell, John Siefert, John Shingledecker, “EPRI P87, A New Filler Material for Dissimilar Metal Welds”.

Fabtech 2009

- “Welding and PWHT of P91 Steels”.
- “The Rewards in Purchasing Filler Metal by the AWS A5.01 Specification”.
- “Cracking Problems with Grade 91 and Other Creep Strength Enhanced Ferritic (CSEF) Steels”.

AWS Fall Technical Seminar, October 2009, Edmonton, Alberta, Canada

- “Flux Cored Arc Welding for High Integrity Applications”.

AWS Fall Technical Seminar; Welding Considerations for Corrosive Service Applications; October 17, 2008; Edmonton, Alberta, Canada

- “Challenges Welding Duplex and Super Duplex Stainless Steels for Corrosive Service Applications”.

AWS Show, Detroit, Michigan; April 30, 1998.

- “Welding Duplex and Super Duplex Stainless Steel Piping and Tubing”.

AWS Show, Los Angeles, California, April 1997.

- “Composition and Product Form Effects on Strip Cladding Deposition Rates”,

Heavy Steel Fabrication Conference, New Orleans, Louisiana, February 1997.

- “High Deposition Cladding Using Sintered Strip and Extended Stick-Out Techniques”,

Euroweld Education Technical Seminar Series (Presentations by W. F. Newell, Jr.)

- " 16-8-2 and Other Weld Metal Compositions that Utilize Controlled Residual Elements to Enhance and Maintain Elevated Temperature Creep Strength"
- "Results of Recent Field Experience and Metallurgical Studies with P91 (and P92)"
- “Challenges Welding Duplex and Super Duplex Stainless Steels for Corrosive Service Applications”
- “Flux Cored Wires for High Temperature / High Integrity Applications”
- “Welding Chrome-Molys, Why Technique and Workmanship Matter!”
- “Altering Welding Consumables to Meet Specialized Needs”
- “The Hydrogen Boogey Man”
- “Dispelling Myths Associated with Current Welding & Consumable Technology”
- “Heat Resisting Alloys – Furnace Applications”
- “Welding P91 – An Update”
- “Duplex and Super Duplex - Updates and Questions!”
- “The True Cost of the Low Bidder”
- “Dissimilar Metal Welding Challenges When Joining Chrome-Molys to Other Alloy Families”

- “Weld Wire Cleanliness – How Clean is Clean?”
- “ASME QW-409.1(c) and Complex Waveform Power Sources”
- “Delta Ferrite Considerations in Stainless Steel Welding”
- “ASME QW-409.1(c) and Complex Waveform Power Sources”
- “Qualifying Repairs for High Temperature Service”
- “The Importance of Composition and Wire Processing for Automated or Orbital GTAW”
- “Weld Metal Procurement”
- “Fundamentals of Submerged Arc Welding
A Workshop Highlighting the Process, Fluxes and Application Variables – Part 1, Fluxes”, December 2012
- “Fundamentals of Submerged Arc Welding
A Workshop Highlighting the Process, Fluxes and Application Variables – Part 2, Process Variations and Process Variables”, March 2013
- “Challenges Meeting Temper Embrittlement Criteria with Welding Consumables”

Training Courses: Welding for Non Welding Personnel (2-day)

- Tennessee Valley Authority
- Southern Companies

Webinars for Electric Power Research Institute

- “Introduction to ASME Section IX”; September 3, 2013
- “Procurement of Weld Filler Metal”, November 28, 2012.
- “Utility Power Plant Welding Applications – Self Assessment”; September 27, 2012

United States Patents:

- “Weld Filler for Welding Dissimilar Alloy Steels and Method of Using Same”, No. 7,562,807.
- “Controlled Composition Welding Method”, No. 6,884,959 B2.
- “Method and Apparatus and Prefabricated Replacement Tube for Localized Waterwall Repair”, No. 6,596,957.
- “Method for Fabricating a Valve”, No. 5,060,374.