

PROFESSIONAL BIOGRAPHY

JERRY D. BYRD, P.E.

PRESENT POSITION:

President - Byrd Coatings Consultants, Inc.

EDUCATION:

Bachelor of Science, Chemical Engineering
Washington University, St. Louis, MO., 1957

Bachelor of Science, Meteorology
Pennsylvania State University, 1959

EMPLOYMENT:

Carboline Company, St. Louis, MO.
Laboratory Technician, 1954-1957
Research & Development Group Supervisor, 1957-1958, 1960-1965
Engineering & Technical Service Manager, 1965-1976

Began work part time while attending Washington University. Worked in research and development laboratory, started and ran the testing department which involved designing and building test equipment. Began work full time upon graduation until called to active duty in the Air Force. Returned to the company when released from active duty. Worked in all departments in research and development. This entailed formulation and evaluation of materials for a variety of coating applications in all generic types of coating materials. As manager of the testing department, a thorough knowledge of coating types and their ultimate resistance to a variety of environments was necessary. This position also entailed designing and building testing equipment if none were available for a specific test. As manager of Engineering and Technical Services for the company, I was responsible for all technical information transmitted to the field. This involved close liaison with the laboratory as well as customers to determine the proper materials to be used in a specific environments and locations. Surveys and specification writing were a major part of the responsibilities. Work included coatings for all types of chemical and petrochemical plants, refineries, pipelines, rail cars, and marine vessels as well as nuclear plants and government installations.

U.S. Air Force, 1958-1960

Attended Pennsylvania State University to obtain BS in Meteorology, then weather forecaster at Chanute Air Force Base in Rantoul, Illinois.

CONOCO Inc, Ponca City, OK

Chief Engineer, Protective Coatings, 1976-1988

Involved testing, selection, specification writing, and inspection of the application of coatings and linings used in all facets of oil production, transmission, refining and distribution, as well as petrochemical plants worldwide. This involved coatings, linings and anti-fouling coatings for several very large cargo carriers owned by the company. Coatings and corrosion control methods were required on all of the companies multitude of off-shore production platforms world-wide.

The largest off-shore oil production platform ever launched from a barge was the Murchison Platform in the North sea. All coatings and linings for this platform were specified and inspected for the proper application of the coating materials. Specifications were written for the use of flame sprayed aluminum on the flare boom of this platform which was the first use of this type material on an off-shore platform for this service.

Specifications were written and coatings inspected for the Hutton Platform in the North Sea. This was the first tension leg platform ever installed. Since that time another platform has been installed off the coast of Louisiana in water depths which were impossible only a few years prior to its installation. Additional platforms of a similar design are planned for the area. Extensive testing was performed prior to specifications being written for the use of flame sprayed aluminum on the high tensile strength tethers on this platform. Again this was the first time that flame sprayed aluminum had been used for this service.

During the time at CONOCO, extensive research was performed to determine that the use of epoxy coatings in conjunction with cathodic protection could greatly reduce the number of anodes needed for protection on off-shore platforms as well as increase the life of the protection system on the structure by a factor of 2.5 times. This resulted in a savings of several thousand pounds of anodes on the Murchison Platform. This information was also utilized on numerous off-shore platforms which were built for the Gulf of Mexico.

Failure analysis was done on the coating on 25 miles of undersea pipeline coated with epoxy in the United States and shipped to the country of Dubai in the Middle East. This resulted in the U.S. contractor admitting to improper surface

preparation and cure of the epoxy coating. This was the result of the lowest bidder getting the work and no inspection specified.

Specified and inspected application of tank linings in numerous chemical and petrochemical tanks. Specified and inspected application of fiberglass reinforced coatings in about 50 oil and product storage tanks.

Additional responsibilities required expertise in fiber reinforced plastics, fireproofing, and roofing materials for all CONOCO facilities world-wide. This involved testing of materials, selection, specification writing and, in many cases, inspection during installation at the various installations.

S.G. Pinney & Associates, Inc., Port St. Lucie, FL.
Senior Associate, 1988-1991
Vice-President, 1991-1992

The company performs engineering and inspection services for the corrosion control industry. Responsibilities included services in: failure analysis and repair recommendations, condition surveys, education and training certification, coating application inspection, specification preparation or review, cost estimating and expert witnessing. Specific assignments involved plant surveys of coating conditions and failure analysis of coatings on power plants, sewage treatment plants, fertilizer plants, pulp and paper mills, pipe-lines, etc. throughout the country.

Corrosion Control Consultants & Labs. Inc.
Vice-President, 1992 - 2001

The company provides engineering and consulting services in coatings and corrosion, with special expertise included failure analysis and repair recommendations, Coating condition surveys, education and training, coating application inspection, specification preparation and/or review, cost estimating and expert witnessing.

Byrd Coating Consultants
President 2001-Present

The company provides engineering, consulting and inspection services in coatings and corrosion. Expertise includes different types of corrosion protection materials including liquid coatings, sheet lining materials, metallizing, galvanizing, and fiber reinforced plastics (FRP), as well as fireproofing and roofing materials. Experienced instructor teaching coating application and inspection, coatings engineering, and other coatings related courses. Courses taught for NACE include, Basic Corrosion, Protective Coatings and Linings - Basic and Advanced,

Marine Coatings Inspection, International Coating Inspector Training and Certification Program (all 3 sessions). Extensive background in coatings research and development and coatings testing for a major coatings manufacturer and petroleum company enhanced the laboratory capabilities in both practical and technical procedures for coatings testing.

PROFESSIONAL AFFILIATIONS:

NACE International (National Association of Corrosion Engineers)

Member since 1964. Active on numerous technical committees.

Instructor for "Basic Corrosion"

Instructor for "Protective Coatings and Linings" courses (both Basic and Advanced)

Instructor for "International Coating Inspector Training and Certification Program"

Instructor for "Marine Coating Inspection Program"

Instructor for "Designing For Corrosion Control"

National Society of Professional Engineers (NSPE)

Oklahoma Society of Professional Engineers (OSPE)

Steel Structures Painting Council (SSPC)

Instructor for "Fundamentals of Protective Coatings for Industrial Structures"

Instructor for "Specifying and Managing Protective Coating Projects"

American Society for Testing and Materials (ASTM)

PROFESSIONAL ACTIVITIES:

Certifications: Registered Professional Engineer OK No. 12367

Registered Professional Engineer TX No. 95227

NACE Corrosion Specialist No. 1040

NACE Protective Coating Specialist No. 1040

NACE International Coating Inspector No. 1365

NACE International Marine Coating Inspector

Nuclear Safety Related Coating Engineer NCE145

SSPC Protective Coatings Specialist No. 123-

28-0228

PUBLICATIONS AND PRESENTATIONS

Publications include the following:

Byrd, J.D., "Coatings and Cathodic Protection for Pipeline: An Introduction". Journal of Protective Coatings and Linings March 2002

Byrd, J.D., "An Introduction to Glass-Reinforced Coatings". Journal of Protective Coatings and Linings November 2001.

Rosbrook, T., Thomason, W.H., Byrd, J.D., "Flame-Sprayed Aluminum Coatings Used on Subsea Components". Materials Performance - September 1989.

Byrd, J.D., "Well Planned Refinery Painting Program Can Help Cut Costs". The Oil and Gas Journal - May 9, 1977

Byrd, J.D., "How to Test Coatings for Specific Applications". Materials Protection - April 1965

Presentations include the following:

"Formulation & Characteristics of Vinyl, Phenolics, Urethanes and Chlorinated Rubber Coatings" presented for NACE 8th Annual Liberty Bell Corrosion Course, Philadelphia, PA - September 1970.

"Zinc Rich Coatings" presented for NACE 9th Annual Liberty Bell Corrosion Course, Philadelphia, PA - October 1971.

"Vinyl and Epoxy Coatings" presented for NACE 10th Annual Liberty Bell Corrosion Course, Philadelphia, PA - October 1972.

"All Epoxies Ain't the Same" presented for NACE 11th Annual Liberty Bell Corrosion Course, Philadelphia, PA - September 1973.

"Inorganic Zinc Primers" presented for NACE 12th Annual Liberty Bell Corrosion Course, Philadelphia, PA - September 1974.

"Zinc Rich Coatings" presented for 20th Paint Short Course For Maintenance Engineers at University of Missouri - Rolla, MO August 1974.

"Vinyl and Epoxy Coatings" presented for 21st Paint Short Course For Maintenance Engineers at University of Missouri - Rolla, MO - February 1975.

"Application of Heavy Duty Coatings" presented for 22nd Paint Short Course For Painting Contractors and Maintenance Engineers at University of Missouri - Rolla MO - August 1975.

"Testing of Protective Coatings" presented for CONOCO Engineering & Materials Conference at Ponca City, OK - February 1977.

"How to Save Money by Using a Planned Maintenance Painting Program" presented for CONOCO Engineering & Materials Conference at Ponca City, OK - February 1977.

"Program For Testing Paint Application Effectiveness" presented at the National Petroleum Refiners Association 1977 Refinery and Petrochemical Plant Maintenance Conference in Philadelphia, PA - February 1977.

"Fireproofing Structures" presented for CONOCO Engineering & Materials Conference at Ponca City, OK - February 1979.

"Galvanizing vs Painting" presented for CONOCO Engineering & Materials Conference at Ponca City, OK - February 1979.

"Offshore Painting" presented for DuPont Protective Coatings and Thermal Insulation Meeting in Richmond, VA - May 1983.

"The Hutton Platform" presented for DuPont Protective Coatings and Thermal Insulation Meeting in Charlotte, NC - May 1985.

"Maintenance Coatings of Offshore Platforms" presented for National Association of Corrosion Engineers - Wilmington Section, Media, Pa February 19, 1986.

Approximately 40 presentations were made while at CONOCO to various production facilities, chemical plants and refineries world wide. These presentations were on surface preparation, application and inspection of coating for facilities. Approximately 30 presentations of the Federal Highway Administration course on bridge painting inspection were given to various state Department of Transportation groups. In addition to the above, numerous courses have been presented for NACE International and SSPC throughout the world.