BlueDragon®

BD-301 Root Cause, Apparent Cause and Safety/Accident Investigations Workshop

(Critical Thinking and Complex Problem Solving Skills
to Help us Thrive in the Age of Artificial Intelligence)

Instructor	Rob De La Espriella (rob.dle@dle-services.com) Author of the BlueDragon™ Root Cause Method
Dates	February 4 to 6, 2020 (Tuesday to Thursday)
Times	8am to 5pm daily
Venue	MyNextSuite (www.MyNextSuite.com) 123 Center Park Drive, Suite 302 Knoxville, TN 37922 Tel 865.392.9040

According to the World Economic Forum, the top two skills that humans need to thrive in the fourth industrial revolution (i.e. the age of Machine Learning and Artificial Intelligence) are Critical Thinking and Complex Problem Solving.   BlueDragon is a lean, agile and scalable complex problem solving method that is founded on developing the student's critical thinking skills, combining critical thinking tools with innovative Lean and Agile techniques to accurately identify the root causes and contributing factors that are causing human performance issues, equipment malfunctions and organizational and programmatic breakdowns.   The method is accurate, scalable and repeatable, and eliminates much of the bias and undue influence that often plagues such analyses. During this course, the author also demystifies root cause analysis, clears up misconceptions about how root causes are identified, and explains how BlueDragon should be used proactively to identify the root causes of negative trends before they cause more significant events.   And BlueDragon does not require any proprietary software, making it the most cost-effective method on the market.

BlueDragon was developed and refined by the author after more than 28 years of practical application in the commercial nuclear power industry, Department of Energy projects and the Nuclear Weapons Complex. The "BlueDragon Complex Problem Solving Engine" is considered by some as the next major advancement in causal analysis since Dr. Kaoru Ishikawa developed the "Fishbone Diagram" at the University of Tokyo in 1943.

The 3-day BD-301 BlueDragon Workshop is approved by the Project Management Institute (PMI) and awards 27 Professional Development Units towards PMP®, PgMP® and PMI-RMP® certifications.

What's Included	• PMI approved Instructor-Led Training • Case Studies with experiential learning • Student Handbook • BlueDragon Templates • Certificate of Completion • 27 Credit Hours from PMI

BlueDragon®
Critical Thinking and Complex Problem Solving Method™
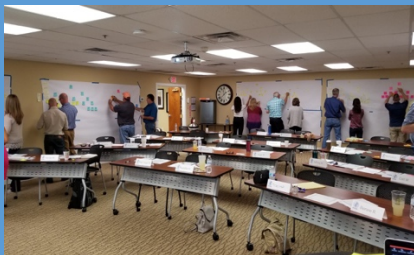Problem Solving Workshops

Tuition: $2,000 USD
Register and Pay by
January 24, 2020 at:

www.dle-services.com/register-and-pay
or send a check by mail

DLE TECHNICAL SERVICES, LLC

BlueDragon BD-301 Workshops

"Critical Thinking and Complex Problem Solving Skills"

This cutting-edge and innovative workshop is ideal for management, Performance Improvement organizations, Lean Six Sigma practitioners, Industrial Safety personnel, QA/QC oversight personnel, Contractor Assurance organizations and Corrective Action Program owners that work in complex operating environments and regulated industries. The workshop is set up like an MBA course, using over a dozen Case Studies that allow participants to practice the tools and techniques and develop a great degree of proficiency during the workshop. The Lean and agile techniques taught in the workshop cut the time it takes to complete a root cause by as much as 75%, and reduces the number of participants needed on the root cause teams by 50% or more.

What Topics are Covered?

- ✓ INTRODUCTION TO PROBLEM SOLVING
  - o Standard Problem Solving Methods
  - o Problem Solving Tools & Techniques
  - o The BlueDragon Problem Solving Engine
- ✓ CAUSAL ANALYSIS FUNDAMENTALS
  - o Definitions
  - o Anatomy of an Event
  - o Types of Causal Factors
  - o Cause and Effect Relationships
  - o 5-Why's –Fundamental Building Blocks
- ✓ DEFINE THE PROBLEM AND GATHER DATA
  - o Defining the Problem & Selecting the Team
  - o Fact Finding, Observations, Interviews
  - o Extent of Condition
- ✓ ANALYZE DATA & ESTABLISH LINES OF INQUIRY
  - o Data Analysis Tools & Techniques
  - o Barrier Identification and Analysis
  - o Establishing Themes and Lines of Inquiry
- ✓ CONDUCT CAUSAL ANALYSIS & ID ROOT CAUSES
  - o BlueDragon Causal Analysis Tools & Techniques
  - o Agile techniques that dramatically improve the efficiency and effectiveness of the root cause
- ✓ DIAGNOSING O&P ISSUES
  - o Tools & Techniques for Diagnosing Organizational & Programmatic (O&P) Weaknesses
- ✓ VALIDATING ROOT CAUSES
  - o Root Causes vs. Contributing Factors
  - o Identifying Root Causes
  - o Validating Root Causes
- ✓ ADDRESSING ROOT CAUSES
  - o Corrective Actions to Prevent Recurrence
  - o Mistake Proofing
  - o Effectiveness Reviews
- ✓ ROOT CAUSE REPORTS & COMMUNICATING RESULTS
- ✓ LOCK IN THE GAINS & CELEBRATE
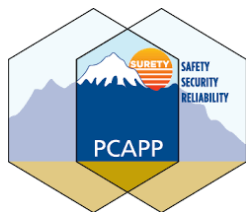
What Will Students Learn?

- ✓ Establishing Event Time Lines
- ✓ Interviewing Techniques
- ✓ Process Mapping
- ✓ Affinity Diagrams
- ✓ Pareto Charts
- ✓ Barrier Analysis
- ✓ Analyzing a Culture
- ✓ Establishing Lines of Inquiry
- ✓ The BlueDragon Diagram (BlueDragon's Problem Solving Engine)
- ✓ Ishikawa – Fish Bone Concepts
- ✓ Fault Tree Analysis
- ✓ Mistake Proofing
- ✓ Countermeasures Matrix
- ✓ T-Matrix
- ✓ Typical Root Cause Report Outline
- ✓ Communicating Results to Management
- ✓ Communicating with Regulators
- ✓ Standardization
- ✓ Dissemination
- ✓ Indoctrination
- ✓ Celebration & Recognition

BlueDragon Advantages

- ✓ Scalable, accurate, repeatable results
- ✓ Saves time and resources
- ✓ Promotes Critical Thinking and a Strong Problem Solving Culture
- ✓ Supports Continuous Improvement
- ✓ Supports a Safer Workplace
- ✓ Supports a Strong Quality Culture
- ✓ Most Cost Effective Method on the Market

BlueDragon Clients

N3B Los Alamos

TRIAD National Security, LLC

SN3 Stoller Newport News Nuclear
A Subsidiary of Huntington Ingalls Industries

Savannah River NUCLEAR SOLUTIONS℠
FLUOR • NEWPORT NEWS NUCLEAR • HONEYWELL

BECHTEL

CNS | consolidated nuclear security, llc
PANTEX PLANT | Y-12 NATIONAL SECURITY COMPLEX

FLUOR®

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NATIONAL SECURITY LLC

BROOKHAVEN NATIONAL LABORATORY

INL

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NATIONAL LABORATORY

PCAPP

BGCAPP

UCOR
URS | CH2M
Oak Ridge LLC

Sandia National Laboratories

PRINCETON UNIVERSITY

NFS
NUCLEAR FUEL SERVICES, INC.

Fluor-BWXT | Portsmouth

NOTE

Bechtel is an Engineering, Procurement and Construction company with annual revenues of over $40 billion and 55,000 employees world-wide. In the Spring and Summer of 2017, Bechtel conducted an extensive evaluation of 10 industry recognized root cause analysis (RCA) methods. The Bechtel head of Six Sigma and Quality, along with four Bechtel Black Belts, attended a BlueDragon workshop in February 2017. After benchmarking the 10 RCA methods, Bechtel selected BlueDragon as their root cause analysis method of choice and in 2018, awarded a Master Services Agreement to bring BlueDragon to their four Global Business Units.

BlueDragon Instructor

BlueDragon® Creator Rob De La Espriella

Rob De La Espriella is a former nuclear submarine officer and the founder/owner of DLE Technical Services, LLC (DLE), a small prime contractor at the Department of Energy. Rob is one of the foremost experts in root cause analysis, with over 30 years of experience in leading and teaching root cause analysis tools and techniques at commercial nuclear power plants, the US Nuclear Regulatory Commission (NRC), the DOE, the US Department of Defense (DOD), Engineering firms, and at Princeton University.

Rob became a root cause subject matter expert and practitioner in 1989 as a member of the Florida Power & Light team that won the Deming Prize1, the first company in the world outside Japan to win the award. He has received formal training in root cause analysis and problem-solving methods such as Kempner Trego, Management Oversight Risk Tree (MORT), TapRoot, the Phoenix method, Human Performance Evaluation System (HPES), Total Quality Management (TQM), Lean/Six Sigma and Kaisen.

Since 1990, Rob has led of facilitated hundreds of root cause evaluations, audits, assessments and complex problem solving efforts. In 1995, Rob received several awards from the NRC for leading root causes and for bringing Total Quality Management Concepts to the NRC. In 2003 and 2005, the Institute of Nuclear Power Operations (INPO) listed Rob's Nuclear Assurance organization as one of the strongest in the US, in large part, due to their problem-solving skills and problem-solving culture. The World Association of Nuclear Operators (WANO) also sought Rob's expertise for improvement projects in South Africa and Slovenia.

In 2010, at his clients' request, Rob began teaching his unique approach to root cause at DOE sites. In 2018, he registered the BlueDragon® trademark with the US Patent Office. Using the BlueDragon® lean and agile approach to root cause, Rob has completed numerous root causes on complex, technical issues (including near fatalities) across the DOE campus and at the DOD. In 2011, Rob was the lead root cause evaluator for the explosion that took place at Idaho National Laboratory's Experimental Breeder Reactor (EBR-1). More recently, Rob has led root cause teams to investigate complex issues such as the flooding of the Molten Salt Reactor Project, a near fatality at a DOE site in Oak Ridge, and a series of motor failures of the Compressed Air System air compressors at the DOD Blue Grass Chemical Agent Destruction Plant, and the Procurement Program at SRNS.

In 2016, Rob launched an initiative to bring valuable, real-world critical thinking and problem-solving tools and techniques to Veterans transitioning to civilian work, Hispanics entering college, Historically Black Colleges & Universities, and graduate/undergraduate college students. Since then, Rob has awarded free tuition to over 80 full-time college students and faculty to attend BlueDragon® workshops and seminars. He has also taught BlueDragon® tools and techniques to Design Thinking Teams at Princeton's Keller Center for Entrepreneurship every summer since 2016 and continues to be invited back each year.

For additional information on the Deming Prize, visit: https://www.sun-sentinel.com/news/fl-xpm-1989-10-19-8902040936-story.html