Reliability Is Alive and Well!

A conversation with “no-nonsense” Senior Manager and fourth-generation maintenance professional, Dr. Nathan C. Wright D.M., CMRP, PMP, MBA, & MLT1

IP: You've worked across many industries. Which projects have been the most challenging? Which have been the most gratifying?

Wright: As for the most challenging project there are many, all for the same reason. By this I mean the common thread in these projects was the organization’s desire to find a quick fix or shortcut to their unreliability. The need for instant gratification within these organizations was so overwhelming that the biggest obstacle was the senior leaders and their lack of understanding of what reliability was and what it took to achieve it.

IP: You have quite an extensive background in your field. What was the turning point that led you to pursue this course of action regarding reliability within organizations?

Wright: In my early career, like many maintenance people, I was guilty of viewing my job as a fix-it person. I never thought of the cost of the downtime or the approach until I took a position at Northrop Grumman. My boss was the facility manager, and his background was service and sales in support of maintenance. He allowed me to develop my own style and approach to maintaining the equipment. I quickly learned that not allowing the equipment to fail was the best approach. I read and learned all I could about the strategies associated with preventive, predictive, and proactive maintenance, and drew on the accumulative experiences of my father, uncles and siblings and their approaches and strategies. I finally realized it was easier to stop the failure from happening than recovering from the failure. Since I was also responsible for meeting the budget, it was a lot more cost effective too.

Though this was a turning point in my career, continually improving my skills and learning as much I could did not end here. Earning a Bachelor’s, Master’s, and Doctorate allowed me to move into supervision, better understand the financial aspects of the job, and understand how to influence people and organizations in the development and change aspects of my jobs. Finally, I earned the machinery lubrication technician certification as I firmly believe that lubrication is the single greatest opportunity in reliability improvement.
To this end, the most gratifying for me were the assignments where I was able to shift the mindset of the senior leaders to taking a reliability approach. Helping an organization understand the competitive advantage that reliability offers and showing them how to achieve it, is what drives me. When I begin to hear senior leaders repeat my elevator speech (“Reliability is all about proper lubrication, contamination control, and proper installation”) I know we have turned the corner. Then I know great things are ahead.

Essential knowledge for every reliability professional

IP: You’ve been very successful in your professional endeavors. Have you ever reached a point where you felt that you had to accept that circumstances were such that you were not able to reach your or the company’s expectations? If yes, how did you proceed?

Wright: Yes, there have been points where I realized that I lacked the positional authority to make the impact that was necessary to achieve the company’s expectations without the support of the senior leadership team. In this instance, I did not have the access to the right people in the organization to make true reliability happen in a timely manner. Even worse I was blocked by middle managers who were not qualified for the positions they held and they were unwilling to pursue the support necessary due to their own lack of knowledge and qualification.

To move the organization forward, I had to focus on the portion of the organization that I could affect and communicate the success in hopes that those above the middle manager obstacles would begin to notice and inquire about the variances. In assignments where this was the process I had to follow, it was difficult to accept the waste associated with this approach, but as I have matured I realized you have to accept what you can’t control. Take ownership for what you can and do everything you can to continue to educate and help the organization you are a part of.

IP: Your new book has a very intriguing title which may seem to have a negative connotation to some of the audience. What led you to name this work, The Death of Reliability?

Wright: This one is easy. One of the biggest obstacles to organizational success is political correctness. Most leaders today are busy saying what their leaders want to hear. Not what they need to hear. In my experience subtly falls on deaf ears. To get the attention of those in the industry who are the decision makers and after reading thousands of books on reliability, I felt the title would grab their attention and get them to pick up the book and read the intro. From there, it is my hope they finish the book and that it causes them to view their organizational strategy on reliability in a different light. I know senior leaders want to be successful, but I also know 96% of them do not understand reliability and they do not have access to a true reliability professional, so I wanted to get them to start asking the right questions.

IP: Your work will be featured at the upcoming Society for Maintenance and Reliability Professionals conference, in mid-October. What do you want attendees to know about your book?

Wright: As a fourth-generation maintenance professional, I was asked by my son (fifth-generation in the field) and his cousins to write down what my family has learned over the past 100 years in maintenance. Knowing that organizations are putting young engineers in position to fail, I wanted to give them a resource. Reading a book will not make a difference, but helping them know what they don’t know will. Again, I believe that these folks want to do a good job, but they don’t know how. I want them to know that there are resources that can help; all they need to do is ask.

IP: The book has an affiliated website, located at www.deathofreliability.com. What kinds of materials can readers find there that aren’t contained in the book?

Wright: On the website, users will find templates that can help them justify projects, set budgets, manage budgets, build development programs, calculate opportunity, and understand the competitive advantage awaiting them.

IP: Lastly, your book goes above the “what” and “why” of reliability found in other resources to offer the “how to” of reliability. What exactly does the “how to” of reliability entail?

Wright: The majority of books written on reliability are theoretical. They are written by people who have never actually done maintenance and have no real-world hands-on experience. They tell you what reliability is and why you need it, and they are written based on others’ experience and offer unrealistic solutions. I offer a hands-on actual approach that works in organizations today.

For more information and to order, visit us at industrialpress.com; ebooks.industrialpress.com.
Change is Possible!
A conversation with results-oriented Maintenance and Manufacturing Executive, Roger D. Lee

IP: Your expertise is in the chemical and refining industry. What led you to focus on this area?

Lee: After graduating from Louisiana Tech University with a degree in Mechanical Engineering, I went to work for Eastman Chemical. I remained employed there for over 34 years, working on assignments that took me all over the world. Chemical and refining offer a lot of opportunities for ME’s. Having also worked as a contractor for Brock Services, which provides scaffolding, paint, insulation and any soft crafts the client no longer wants to perform, allowed me to experience the industry from the other side of the table. Most companies take their contractors for granted, treating them like stepchildren. In my experience, contractors need the same information and lead time provided to them as a company’s own workforce to perform at their optimum level. America depends on the products from the chemical and refining industry and each plant has room to improve. I thrive on a good challenge.

IP: During your extensive career, which projects have you learned the most from? Which have you found the most interesting? What are you working on now?

Lee: My career has been focused on solving problems and helping fix processes that are not performing as expected. Whenever I got an area fixed, I was moved to the next problem. This path gave me exposure to a huge variety of problems and solutions and offered a chance to learn from my mistakes.

In terms of what I find the most interesting, I prefer “greenfield” projects (construction, start-up and hand-off) best because I’m able to see the plant take shape from the ground up and I get to take new people and teach them the processes that will run the plant the “way I have always wanted it to run.” It’s also easier to start with a clean slate to shape the work processes from the very beginning. Old habits are harder to break.

Presently, I am consulting with a family-owned maintenance and construction company that has several machine shop affiliates that allow them to provide unique offerings to their industrial clients. As they transition from the second to the third generation after major growth, I am helping them update their work processes and systems to handle the increased workload. Their already impressive core values are being enhanced to keep them competitive and in the growth platform.

IP: Do you see any technological advances in the near future that will enable organizations to achieve maintenance excellence more efficiently?

Lee: Technical advances in reliability and monitoring equipment are presently allowing plants to run longer between outages and more efficiently, but the people skills and interactions are still copies of what “used to work.” At each level your people are your most valuable asset. We must have true partnerships with the right groups taking ownership for the pieces they control. Communication and structure are key to future success. We must break the barrier of “it is not my job,” and do what makes sense. Operators must be trained in maintenance skills to understand how to better operate their equipment and be able to tell maintenance what is wrong or what improvement is needed. Mechanics must listen and work with operators to troubleshoot and solve problems. Tap into the knowledge of these two groups, and you will be amazed.

IP: Your new book, The “Maintenance Insanity” Cure speaks to tackling projects the same way no matter the result. What are the steps you take and the tools you use to change an organization where the culture is “we’ve always done things this way?”

Lee: Change only occurs when you are dissatisfied with your present situation. You have to create a case for change and get buy-in at all levels before you proceed. People at each level must see “what is in it for me.” It’s always easier to see opportunities when someone else has done it before you. I use a lot of case studies and success stories to show clients their new potential. Change is not easy, and it takes a lot of work, but it is definitely worth it. I am always amazed what people say once change has occurred and they look back to where they had been. Change is about “know how” or “want to.” You can teach someone who does not know how but is willing to learn. If some people do not want to change or cannot change, they must be moved out of the process or let go. Getting all people at all levels contributing is the key to success. Get the right people involved, make a plan, and work it for the results you desire to achieve.

For more information and to order, visit us at industrialpress.com; ebooks.industrialpress.com.
IP: Your work will be published just in time for the SMRP meeting in mid-October. How will attendees benefit from the information provided in your book?

Lee: All industry and locations have some “Maintenance Insanity” in their present processes. Acknowledging that fact is the first step to a better future. This book provides alternatives to fit your specific situation. Why re-invent the wheel when someone has already done the hard work for you? Take an honest look in the mirror and then find the solution in the book that best fits the change you need or desire. If you need help ask for it. We are all in this together. When you accept that your site is operating as if it is under a dome, then you will understand that your work processes must account for and involve everything and each party entering and leaving the dome to keep things from falling through the cracks. This books paints the picture to address all the activities happening under the dome.

IP: The book will have an affiliated website, located at www.maintenanceinsanity.com. What other material will readers find there, as opposed to the printed work?

Lee: The book explains the processes and solutions that have been applied successfully to many different locations around the world for a variety of projects and problems. The website will have actual tools that users can customize to fit their specific needs. I will gladly answer questions to help users understand how to use each tool or form at RDL.Solutions@outlook.com. These tools add to the level of understanding to be able to apply what is learned from the book. The book and tools are identified for use by selecting the chapter that covers your present problem. Skip around, take what you like and leave the rest for your next issue. These are all real-life solutions to other people’s problems that can enlighten users to see the “trees in the forest where they are now lost.” My goal is to help people enjoy coming to work each day and looking forward to new possibilities.

The “Maintenance Insanity” Cure
Practical Solutions to Improve Maintenance Work

By Roger D. Lee
Pages: 275, Hardcover
ISBN (print): 978-0-8311-3624-6, Price: $54.95
ISBN (ebook): 978-0-8311-9467-3, Price: $43.95

For more information and to order, visit us at industrialpress.com; ebooks.industrialpress.com.