**Safety First!**
Our new global HSE standard explained

John Daley

How much time have you spent trying to find the current HSE standards and controls when working on a customer project? Was it easy to find the needed reference documentation for your situation? Or did it require multiple steps and emails to get the information you needed?

We've made this process simpler, with policies and procedures that are easier to understand and access, to save you time and effort!

Last month, we rolled out “The ABB Way” HSE Management System, which is our global set of health and safety standards for ABB employees. Designed to provide a consistent Policy on Health, Safety, Environment, Security and Sustainability across all of ABB, The ABB Way HSE management system serves as a one-stop-shop for ABB employees for guidance on health and safety practices, standards, and ISO compliance. It encompasses all global and local standards for HSE, at one central access point using Safety Manuals.

This global initiative is the result of over two years of collaboration across all company locations, businesses and divisions. This extended team determined our core management standards for ISO compliance on how to operate at the highest levels of safety and security. They also set control standards for our field service team that document specific safety practices that must be followed.

The ABB Way HSE management System reduces complexity and confusion as to what standards apply where and serves as a central reference point for all employees. This working tool will be updated on a regular basis.

Here are links to site specific manuals for IAPI US: Note that the CLE Manual includes Life Cycle Services. You may need permission to access.

SA-A-01-02-CLE - Cleveland ABB HSE Manual

Together, we can make sure that ABB protects our employees and our customers and continues to operate at the highest level of HSE standards. This is an accomplishment that we can all contribute to and be proud of! If you have any questions, please feel free to contact me at john.p.daley@us.abb.com

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**In This Issue:**

This issue's theme is safety.

**Safety is ABB's first priority.** The active management of health, safety and environmental risks is a natural extension to our business, and it is ABB’s policy therefore that no person shall suffer injury or ill health as a direct consequence of ABB’s Industrial undertaking. Our goal is zero incidents and minimal environmental impact.

**Articles**

“Safety First!
Our new global HSE standard explained”

“Digitalization and the “Next” Normal”

“Services Outlook”

Tech Tip “The Value Of Normal”

Tech Tip - “Field Service Engineer helps our customer Westrock Covington identify potential production quality issues after a fire”

“Gone Phishing” “beware of phony emails”

“The Current State of OT Cyber Security”

“Team Focus - Profile” “The Willerts – one family works for ABB for decades”

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“Tell Us What You Think”

“Looking Ahead” Entering the Matrix
Digitalization and the “Next” Normal

Where do we go from here?

We have all experienced changes in 2020 that we could not have predicted on New Year’s Eve 2019. Virtually every aspect of our lives, and especially how we work with our customers has changed dramatically. We’ve had to find new ways to meet, collaborate, and help our customers move ahead in these uncertain times. Digitalization has played a huge role in helping us navigate our working relationships with our customers and will continue to be the foundation of how we work together in the “next” normal.

The Connected Engineer is well positioned to help our customers succeed, and grow ABB’s business, in today’s environment. We have the remote tools, technical expertise, and the skill sets needed to make this happen. In this next normal, creative use of digital to solve our customers’ problems gives us access to a virtual army of ABB experts ready to help. The combination of physical and digital products and service capabilities provides us with a competitive edge to meet our customers’ needs. The digital connected engineer enables the full power of ABB to be with you on the front lines; we have an unbeatable offering and an opportunity to deliver value for our customers in terms of production, quality, and cost to produce.

Recently, we’ve had the opportunity to (virtually) meet with several of our customers on different issues – and when the topic of digital services comes up in the discussions, we get a very positive reaction. We’ve heard comments like “I didn’t know you could do that – tell me more” or that having a digital baseline “would be great,” -- customer feedback shows that they are ready to explore these capabilities with us and very much want to have more access to the full potential ABB has to offer. Digital service balances corrective, preventive, and predictive solutions that enable our customers to stay in control of their systems and processes and expand how much they can do across their operations – whether its in one mill or across their entire fleet. Digital offers our clients a competitive edge.

This reinforces what we have heard from you. When we polled you earlier this year about what you were hearing from your customers, remote connectivity was mentioned by more than 75% of you.

This month’s periodical includes links to external webcasts, podcasts and other resources that you can share with your customers and use as a starting point to discuss how we can help them with digital solutions. Here are just a few recent examples:

- In May, I had the opportunity to chat with Future of Field Service editor Sarah Nicastro about the concept of “refactoring” field service – discussing ways organizations need to evolve to keep pace with change, particularly as we recover from COVID-19. This is a look forward at where Field Service is headed:
  Future of Field Service podcast “ABB Discusses the Idea of Refactoring Field Service"
  https://www.futureoffieldservice.com/2020/05/20/5753/

- In June, we presented a webinar to the membership of IDFA (International Dairy Foods Association) IDFA is the largest trade association for the dairy industry in the USA; their members represent a growth area for our business. This webinar served to introduce ABB to this important customer group and explain how digitalization will help them to succeed in today’s environment and be ready for tomorrow’s challenges.
  IDFA Webinar “Digital Readiness for the New Normal”
  The digital revolution is opening up worlds of optimization potential for all industries, especially for dairy producers. Deliverables that were once thought impossible are now possible. Companies can no longer wait, as the next normal is rapidly becoming our new normal.
  https://www.idfa.org/resources/digital-readiness-for-the-new-normal

Check out “In the Pipeline” later in this periodical for more webinars, podcasts and resources.

Moving forward, we continue growing as the Trusted Advisor that our customers turn to for new ways to operate and improve as we navigate into the next normal. By working collaboratively, digital service solutions help pave the way for our customers and for us to thrive and grow in the industrial revolution 4.0. In one of our customer visits, the client made the following statement, “If you guys are so good at digital, why not get your service activity into one of these dashboards?” Sometimes necessity is the mother of invention, so we went to work, and the ABB Ability Performance Dashboard was born.
Services Outlook

As we wrap up our Mid-Year Reviews, this is an excellent time for self-evaluation of our career paths and the skill sets that we bring to our jobs. The pace of change is accelerating in all aspects of our business, and we must constantly assess and reassess our self-improvement goals. Our Personal Development is indeed “Personal” -- we each own our development plans.

Over the past weeks many of you have participated in the successful launch of our Connected Engineer program. One of the most important outputs of the program is that we get to hear what skills the field service team has deemed most necessary to support their connected engineer functions. Hopefully you have seen your output by now as the results are built into the assessment. As you fill it in, you can see your own results and see the courses you need to take.

The Mid-Year Review and PDA process is the best time for you to self-reflect and set goals for yourself.

Here are some topics to help you get the most out of the PDA process with your manager:

- What are my career goals – both short term and long term?
- How can I improve my skillsets so that I can earn more and be more valuable for ABB?
- What do I want training on? (as opposed to your manager telling you what to take training on)
- Can I offer constructive feedback to my manager on how to improve ABB Service, both locally and overall?

You may ask what is ABB Service doing to help with my development?

- Our Connected Engineer program is developing a new suite of learning opportunities based upon your input in the self-assessments. We will be launching the first learning opportunities in August and adding to the suite throughout the year.
- While we have a full complement of ABB University classroom training, we also have built an impressive and growing suite of virtual training courses that you all have access to.
- We will put renewed emphasis on site training/coaching on specific skills to help provide better service at your sites.
- ABB Corporate continues to provide workshops in management and sales training for those who are on that career path.
- Some of the best learning opportunities today are in technical and service-related blogs. We will collect a list of what we feel are the best and share them with you.

As always, we appreciate your feedback on this topic and other topics in this Connected Engineer issue.

Andy Kovach and Jim Fisher

Tech Tips

One of the new areas in the Connected Engineer Periodical is devoted to “Technical Tips” submitted by US Service Team members. We encourage you to submit a suggestion, technical solution, service tip, or any other item that would benefit other US Service personnel. We can share them through the Connected Engineer Periodical. We want to ensure the issues contain articles and information that is useful to you in your daily routines and communications with your customers. For this issue, we are featuring two.

Tech Tip One: The Value of Normal

We received a suggested procedure from Greg Moen, Senior QCS Field Service Engineer. He titled it "The Value of Normal". This Technical Tip is a great example of our engineers helping ABB Customers resolve Paper Machine operating and/or quality issues.

After a shutdown day Greg's customer was experiencing higher than normal CD Bone Dry Weight Variability. The customer thought the CD control system may be causing the variability. After bumping the process and adjusting the control model, which is very rare on this machine, they were able to remove some of the variability. Greg had available reel variability profiles and dilution actuator profiles from periods of normal process operations to compare with the variability profiles and the actuator positions.

After the adjustments to help improve the variability, Greg noted the 'shape' of the dilution actuators was different than Normal indicating something had changed with respect to headbox flow. He brought this to the attention of the customer using a series of screen shots. These included a digitized Normal of the dilution response shape. Based on this, his thinking led him to conclude that to “digitize” Normal may be as simple as noting temperature
Our development team has worked hard, and we now have service activity aligned to all users of ServicePRO. If you have not already checked it out yet, take a few minutes and log in to the ABB Performance Dashboard. (If you are an active user of ServicePro, you are already set up and ready to go). We are now using this in sales pursuits, showing clients what we have for coverage and what they can expect. So far, we are left with speechless customers, in a good way! Data quality, data entry, contract management and contract compliance are all things we can now back up with the ABB Ability Performance Dashboard! Our competitors are talking about digital; we just digitized the entire US! We have real solutions that address what our customers want right now.

As the Connected Engineer, you are at the center of our Service Connection Platform and the glue that holds all of our digital offerings and services together. Let’s continue to guide them on the digital highway to help them see performance improvements and expanded control that they never thought was possible. We are making digital a reality!

What do think? We always want to hear what’s on your mind. Please reach out to Kevin at Kevin.starr@us.abb.com to share an idea, customer insight, or to let me know how we can help you to help your customers.

Gone Phishing
beware of phony emails

We get them all the time – emails from internal ABB addresses asking us to change our password, complete online training, or confirm that we’ve taken a requested action. Or, routine emails from external contacts (customers, vendors and others) that need our response.

We also receive other emails that appear to be from ABB and external contacts but in fact are not. These will ask you to click on a button/link to confirm your action, open a link or open a document – but these are fake, and you open them at your own peril.

With phishing attempts and other cyber mischief becoming more commonplace and sophisticated, how can you be sure?

Our IS team has put in place a system where you can have them investigate the legitimacy of any email you receive – you can automatically generate this request right within Outlook (see circled “Report Phishing” button below) The ABB IS team then opens a ticket and notes the status in your MY IS page. You will need to access that page to see the resolution (Typically in less than 24 hours)

What do think? We always want to hear what’s on your mind. Please reach out to Kevin at Kevin.starr@us.abb.com to share an idea, customer insight, or to let me know how we can help you to help your customers.

Note that this sample email was legitimate (it called for action as part of the mandated separation with Power Grids)

However, with the increased frequency of malicious emails being received across ABB, this simple step to ensure the safety of your data and ABB’s work environment is an easy way to keep our systems secure.

For more information, visit this inside page

Watch and Learn About the ABB Ability Service Connection Platform HERE

Click here to request more information:

The Current State of OT Cyber Security

According to ABB’s IAPI Advanced Digital Services Group, the most common Operational Technology (OT) cyber threats our customers are facing today are Ransomware attacks and the lack of a solid disaster recovery strategy. Ransomware threats are typically spread through unscanned removable media, such as USB drives. Over the past few years, several customers have acquired infections that could have been prevented through regular patching and antivirus update efforts along with proper removable media procedures.

Without a solid disaster recovery strategy, hardware failures resulting from a cyber attack can be costly. Many unplanned outages and server failures can be mitigated by implementing a proper disaster recovery procedure. This includes having appropriate disk imaging software, taking regular backups, testing those backups to ensure integrity, creating a recovery procedure with personnel training, and utilizing cold storage to prevent the backups from becoming compromised in the event of a cyber attack.

On June 25, we conducted a Tech Talk webinar on Cyber Security with John Brajkovich and Dave Willert presenting. There were 31 customers in attendance with nine requesting follow up. One of those requesters is a Food and Beverage customer that was a recent victim of a Ransomware attack. They have now asked for a quotation for the ABB Cyber Security Fingerprint service.

ABB Cyber Security Resources and Experience
The IAPI Advanced Digital Services Group has 22 years of combined experience:

- John Brajkovich – Operations Manager: 8 years
- Dave Willert – Digital Services Engineer: 7 years
- Carter Shaw – Digital Services Engineer: 4 years
- Joe Trimble – Digital Services Engineer: 4 years

The team of Field Service Engineers & Regional Technical Advisors have varying experience implementing cyber security resources spanning recent development to 15+ years.

ABB Cyber Security Services Pipeline

- Cyber Security Fingerprinting: 4 reports actively being analyzed/generated, 5 recently delivered, 7 scheduled to be collected in August. Revenue = $215,000
- Patching Services: 34 patching contracts of varying frequencies are actively being managed. Revenue = $640,000
- Security Update Service: 19 active subscriptions. Revenue = $380,000
- Disaster Recovery Services: 4 orders booked this year. Revenue = $150,000
- Additional Cyber Security Services: Revenue = $212,000
  - System Hardening
  - Whitelisting
  - Device Control
  - Security Workplace
  - Consultative services

ABB Cyber Security Training and Continuing Education

- ABB University training courses:
  - US925 & US926: Patch management, antivirus management, malware remediation, disaster recovery services, system hardening, penetration testing
  - S303: Symphony Plus cyber security

- TÜV Rheinland: Cyber Security Level 1 certification
- Vendor certifications
- Informal training and collaboration
- Self-study
- Tech Talks
Team Focus - Profile
The Willerts – one family works for ABB for decades

In each issue of The Connected Engineer, we will include profiles of the team members you work with every day. For this story, we talked to Dawn Willert, Business Administration Manager for Lifecycle Services. Dawn has been with us for 35 years. Her family has worked with ABB since 1957; collectively, they have over 120 years of service.

Their family history with ABB (then Bailey Controls) starts with her father, Tony Kukwa, who initially worked at the warehouse in Cleveland (Ivanhoe) starting in 1957. Over his 39-year career, he held numerous positions, including Quality Manager. In this role, he put in place the first policies and procedures for ISO-9000 compliance at that site, and also created a training program for this series of standards. His work formed the foundation of the quality systems we use today at ABB.

Dawn’s mother, Sarah Kukwa, joined Tony at Bailey Controls in 1964, and worked there for 32 years in a number of customer service roles. Several of Dawn’s aunts and uncles on Sarah’s side of the family also worked at Bailey in the 1960’s.

Dawn’s brother and sister worked for the company; her sister, Debbie Lino worked in accounts payable for two years (1979-1981), and her brother, Tony Kukwa III worked in inventory control from 1980 to 1985.

In 1985, right after graduating from high school, Dawn joined the family at Bailey. Her first job was in order entry. At that time, Dawn was studying to become a nurse, but she liked her job, the people and work environment so much that she stayed with the company. She found that Bailey offered many interesting opportunities and a good career path. She joined the Field Service team in 1998; today she manages and executes the delivery of services contracts for Process Industries customers in the US.

Following this family tradition, there is a third generation of Willerts now working for ABB. Dawn’s son David Willert does remote engineering in the Advanced Services Group; he has been with ABB for ten years. You may have worked with Dave to help solve a customer challenge – he’s one of our connected experts.

And, this past June, Deanna Willert joined her mom and brother at ABB, starting in order entry on our Finance team. This is the same job that Dawn had when she started at Bailey in 1985; but due to the pandemic, the onboarding process had to be done remotely.

Family ties were very helpful in this situation; because they are related, Dawn was able to assist with the onboarding process in person and help train Deanna for her new job.

Deanna decided to join ABB because of her mom’s positive experience and career at the company.

“ABB has been really good to me,” Dawn said. “You couldn’t ask for a better place to work; people care about each other here.”

Service Milestones
June/July
Your service is greatly appreciated!

David Rissel– 40 years (June 16th)
Randy Kirchner – 40 years (June 23rd)
Pete Tran – 35 years (June 24th)
Jeffrey Vendl– 30 years (June 16th)
Raymond Mandarino– 25 years (June 12th)
Kenneth Wells– 25 years (June 24th)
Michael Clark–20 years (July 12th)
Jeffrey Singleton –20 years (July 17th)
Scott Moore–15 years (July 18th)
David Willert–10 years (June 28th)
Caroline Standohar–1 year (June 15th)
James O’ Brien–1 year (July 8th)

Field Service Lead program
The ABB Field Service Engineer Sales program serves to track qualified leads, regularly update field service engineers, listen to valued team input and recognize outstanding performance. Look for this email with more details coming soon.

US FE Sales Quarterly Update
Congratulations, Q2 winners!
In the Pipeline

A sneak peek at products and services to be released

As we continue to move forward in this next normal in working with our customers, we want to make sure that you are aware of what products and services are in the pipeline, and when you can expect to see them.

At the end of this article, you’ll see a link to our Service Activity Dashboard, which is available now for you to use to track how you are helping your customers and provides tools for you to solve their problems.

Here are a number of recent Service launches – hopefully you had a chance to learn more about all of these:

- **ABB Drives** (January 2020, relaunch in April 2020)
- **Cyber Security** (June 25)
- **Sensor Correlation** (July 15)

We have a number of launches scheduled in the next eight weeks:

- GE Drives Kits for the DC300 (7/27)
- Strength Virtual Measurement (8/4)

Finally, looking ahead, here is are some planned launches for the next 2 – 6 months (note that these are subject to change):

- Wet End Control – Mid September
- Loop Tuning – Virtual Implementation – Late September
- MES: PSIV – October
- ABB Ability Drives – mid October
- Evolution and Upgrade – November

To support the introduction of these products, we have aligned our Tech Talks schedule to make sure that you have the information for your own activities, and externally usable links also share with your customers. In 2020, we've found that each tech talk generates close to $500k in service leads. Which opens the door to more opportunity!

These sessions are an easy and fun way to introduce new products, services and possibilities to your customers.

**Tech Talks -- Launched**

- Loop tuning
- VPA interpretation
- Digital Transformation
- **Global Strength launch** (Internal Link - External Webinar coming August 4th)

**Scheduled (1 to 2 months ahead view)**

- Batch/Sequence Change (Opens to all PI industry)
- Hybrid Plant Assessment

**Planned (2 to 6-month view) (Subject to change)**

- 800xA tips and tricks
- Advanced Process Control (APC)
- Energy talk (Pixel with the steam handling)

**Business Development**

We continue to develop external thought leadership materials to help support your efforts in the field. These high-profile pieces include third party trade articles, podcasts, as well as our own books from our experts; these pieces reinforce the perception that ABB has the best experts, knowledge and solutions in the industry!

**Launched**

- IDFA tech talk for Digital Transformation
- Future of Field Service podcast
- Pulp and Paper Canada interview on Sensor Correlation
- CIO Review magazine – Field Service and Digitalization in the Pulp & Paper Industry

**Scheduled (1 to 2 months ahead view)**

- Updated edition: Single Loop Control Methods (late August)

**Planned (Subject to change)**

- **Service Connection Platform** (30 sec promotional video)
- ABB Services expert interviews in Control Engineering and Chemical Engineering

We mentioned the ABB Ability Performance Dashboard at the beginning of this article – HERE is a link where you can take it for a test drive.

See all the things coming your way as The ABB Connected Engineer and learn more about upcoming features for the ABB Ability Performance Dashboard by watching this extended video!

Watch this space for updates on upcoming product and service launches and new materials!
valve operating parameters?

In the meantime, the customer was reviewing possible causes that may have resulted from the shutdown. After a few weeks they found their issue on the headbox, where a valve was closed which provided slice temperature control.

As Greg noted, it is good to have data from recent periods of normal, good quality, machine operation in your back pocket. Suspect everything until you can narrow down a possible source, or a few sources to help the customer focus on high probability sources. In the majority of instances it will not be the ABB equipment.

Field Service Engineer helps our customer Westrock Covington identify potential production quality issues after a fire

Earlier this spring, WestRock’s Covington, VA paperboard mill lost power over one weekend. As a result, their C1 paper machine stopped and had paper wedged in the calender stack. The stack temperature stayed high, and the paper wedged in the stack ignited. The mill fan system sucked the flames all the way to the ceiling.

After the fire, when C1 was restarted, ABB Field Service engineer Brian Westervelt noticed fast narrow walking patterns in the caliper profile residual contour with dominance around boxes 100 and 480. Brian looked at the single scan profiles in ASAT and sent Advanced Services Engineer Pete Tran the data file to verify what he was looking at.

The results that the data and analytics gave us are shown below. What does all this mean?

The dominant walking pattern CD WL (of 1.391”) around box 100 is a near match to the stack roll diameter. The PS around box 480 still has the dominant CD WL around box 100 but also presents another peak at a slightly longer WL (of 1.622”). The longer WL translates to a slightly larger roll diameter by only 6”. Brian verified the ASAT analysis by single pointing the caliper sensor at box 100 and OSA gave him a dominant MD frequency of ~3.5 seconds (ASAT ~ 3.4 seconds).

Even if the out-of-round rolls were not immediately causing product rejects, this is information that the mill can use to help schedule maintenance and repairs before they start seeing reel build or print registration problems. By proactively looking at the production information, identifying the potential for off spec product, and connecting with an Advanced Services teammate, Brian helped the customer to stay on top of this important aspect of product quality.

This example shows the real power that the Connected Engineer has to deliver the right solutions to our customers at the right time. Kudos to Brian and the Advanced Services team on a job well done!
Tech Tip One Graphics

Average actuator shape after changes to mapping and modeling.

Reel averages from previous day

Reel averages after shutdown
Training Spotlight:
Quality Control Systems Lab

The Quality Control System (QCS) Lab has been upgraded to include the latest ABB 800xA control platform technology. This enables students to review, operate, and troubleshoot the ABB Network, Smart Platforms and sensors from the 800xA host system. Attendees will receive an enhanced hands-on training experience with instruction on systems that are configured similarly to ones deployed in the field. This is in conjunction with the in-depth use of the Service WorkStation (SWS) diagnostic and utilities for Scanner / Sensor maintenance and troubleshooting that has been taught.

View QCS classes  Learn more about US training HERE

Looking Ahead

The theme of our next issue will be “Entering the Matrix – Growing Service in the Digital Age.” We will share insights, tech tips and success stories on how we can work more closely with our customers and expand what we do with them by using the digital infrastructure.

In Case You Missed Them

Don’t miss out on great content from previous Connected Engineer issues! Click to Launch!

Welcome to the First Issue Volume 1 Issue 1

You’ll read about how we were able to use digital to deliver on our system drives service contract for major paper mill in Arkansas, at a time when travel and site visits were almost non-existent. The Connected Engineer was able to use our network of experts online to provide more value for this customer, laying the foundation for additional business going forward!

If you have any story suggestions, or topics you would like to see us cover, please reach out to Laura Patrick at laura.m.patrick@us.abb.com.

Tell Us What You Think

Please go to THIS LINK and fill out a short survey about this issue.