

Which Cybersecurity Standard is Most Relevant for a Water Utility?

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FORMAT

6-12 page paper plus 30-minute presentation

KEYWORDS

AWWA, Cybersecurity, ISA, ISA-99 (62443), NIST Cybersecurity Framework

ABSTRACT

Presidential Executive Order 13636 (EO) – Improving Critical Infrastructure Cybersecurity was issued February 2013. The EO directed the National Institute of Standards and Technology (NIST) to develop a cybersecurity framework strengthening the resilience of critical infrastructure and protecting the national and economic security of the US. The final version of the Framework will be completed in February 2014 as required by the EO. The Framework relies on “existing standards, guidance, and best practices to achieve outcomes that can assist organizations in managing their cybersecurity risk.”

The American Water Works Association (AWWA) has developed cybersecurity guidance specifically for the water sector that will be released in early 2014. The goal of the AWWA cybersecurity guidance is to “provide water sector utility owners/operators with a consistent and repeatable recommended course of action to reduce vulnerabilities to cyber attacks.”

Both the NIST Cybersecurity Framework and the AWWA Cybersecurity Guidance will be valuable resources for enhancing the security and resiliency of critical infrastructure. Both reference the many cybersecurity standards currently available. But which cybersecurity standard is most relevant for the water sector?

One of the key standards referenced in both the NIST Framework and AWWA Guidance is ANSI/ISA-99, now known as ISA-62443. The multipart standard for industrial automation and control system security was developed by the International Society of Automation (ISA) and provides a flexible framework for developing a comprehensive security plan for utilities, including the establishment of policies and procedures essential to a cybersecurity management system.

The paper and presentation “Which cybersecurity standard is most relevant for a water utility?” will provide an overview of the NIST Cybersecurity Framework and the AWWA Cybersecurity Guidance, how ISA-62443 encompasses both, and how ISA-62443 provides a standards-based approach for the development of a comprehensive security plan for a water utility.

ABOUT THE AUTHOR

Don Dickinson *has more than 28 years of sales, marketing and product application experience in Industrial Controls and Automation, involving a wide range of products and technologies in various industry segments. Don is the Senior Business Development Manager – Water Sector, Phoenix Contact USA. He is the past chair of the NC AWWA-WEA Automation Committee and the current chair of the Automation Security subcommittee.*