Internal Control Programs & the Evolution of NERC Compliance Enforcement

Beginning in late 2012 a series of papers were developed, published and discussed how the NERC Compliance Monitoring and Enforcement Program (CMEP) should evolve to move away from the one-size-fits-all approach that is currently used. The initial paper entitled “Incorporating Risk Concepts into the Implementation of Compliance and Enforcement” provided the foundation for moving forward. As the movement progressed through discussions with the NERC Staff and NERC Committees, the concept of risk-based analysis and effective internal controls emerged as the basis for the development of how Compliance and Enforcement should look in the future.

Changing the Direction of Compliance & Enforcement

The NERC Reliability Assurance Initiative (RAI) under development is an attempt to move away from the one-size-fits-all approach, allowing registered entities to install effective internal controls that may result in less frequent and smaller audits. Initially, the new approach does not necessarily make life easier for the entities that must comply with NERC Standards.

The evolving approach includes Risk Management and effective Internal Controls as the foundation for future compliance and enforcement, which will mean that entities with different types of risks will need to develop their internal controls specifically for their system. Risks will need to be documented and evaluated. Entities that have already established forms of internal controls will need to re-examine them to validate that they are focused on the right things and will likely need to devote more effort in adding and/or tuning up the controls they have.

The foundation of developing effective internal controls includes the Control Environment — what are the policies, processes, procedures and controls that are already in place? What is the culture of the organization? What are the Management, Executive and Board behaviors and expectations as they relate to compliance?

Risk Assessment will fall into three general categories:

- **Inherent** – This risk is basically determined by the characteristics of an entity’s system such as size, configuration, and geographical location as well as the entity’s NERC registration.
- **Control** – This risk is intended to capture the effectiveness of the entity’s established internal controls, does the control reduce the risk of non-compliance, does it effectively flag non-compliance conditions and what is the risk that the installed control will capture all scenarios that may result in non-compliance?
- **Detection** – Risk is simply accounting for the risk of a failure of the control program, will the entity know that controls have failed?

Control Activities include the meat of the internal control program that may exist in procedures, policies, processes, analysis, self-assessments, peer reviews, maintenance database, queries, reports and/or other controls that entities have established.

Are your controls installed and effectively used across the organization? Are the controls focused on and monitoring the right things? Will it detect issues that will trend toward non-compliance? What is the role of those first line supervision in monitoring the controls? Does that control notify the appropriate management staff that will take action to correct the issue, or does the control have the capability to self-correct?

Control activities and processes require Monitoring in order to determine the effectiveness of the controls that the entity has installed. The entity should be able to demonstrate that the controls are effective or address any deficiencies found within its internal control process. This monitoring must be of sufficient depth to detect what may not be normally be detected. For example, comparing actual test records for data anomalies vs. what is recorded by technicians may be necessary. Numerous tools exist for the implementation of internal compliance programs; however, these tools are only as good as the data provided. Effective internal process controls should detect potential gaps and anomalies in the data.
The process of risk assessment and effective internal controls is a strong and valuable process that is widely accepted and effectively used by many diverse organizations. Industry participants are well advised to proactively develop the tools and processes in order to effectively get out of current cycle of “fire drill” audit preparation.

The Quanta Technology team of experts in Technical Consulting and Regulatory Services can provide valuable assistance in evaluating risk through a concise and thorough review of the program and records, and develop effective internal controls for moving your organization off the one-size-fits-all audit routine.

Numerous NERC standards apply to the Bulk Electric System Elements and our broad based experience provides unparalleled expertise for assessing and designing appropriate compliance program controls. These standards range from transmission system planning and operation, maintenance of certain equipment including protection systems, and critical infrastructure protection including cyber security. Quanta Technology can assist clients with all aspects of ensuring compliance with the NERC standards. Some examples of our capabilities include:

**Transmission Planning** – Elements of the Bulk Electric System must meet certain transmission system planning requirements as defined in the TPL series of NERC Reliability Standards. The Quanta Technology team is part of the NERC TPL Drafting Team and has the capability and knowledge to perform all of the system studies, both steady state and dynamic system analysis, necessary to demonstrate that the facilities meet the necessary criteria.

**Critical Infrastructure Protection** – The Critical Infrastructure Protection Standards require the identification and protection of critical assets and critical cyber assets that are part of the Bulk Electric System. The standards are constantly changing with Version 4 and Version 5 approved by FERC and NERC, respectively. Version 4 establishes "bright line" criteria for identification of critical assets. Quanta Technology understands the standards and can assist with evaluation of the transmission elements that may become part of the Bulk Electric System based on the new definitions and design implementation strategies that result in compliance, without stranded investments that could result in the transition to newer standard versions.

**Protection Systems** – Protection Systems (protective relays, associated communication systems, DC control circuitry, voltage and current sensing devices, and station batteries) must be installed, set and maintained per the NERC PRC series of standards. These standards require coordination of settings of protective relays and maintenance of the systems on specific intervals. Quanta Technology can assist with an evaluation of the current maintenance and testing program and evaluate processes and procedures to assess any risk of meeting the NERC requirements.

**Facilities Ratings** – Bulk Power System elements must have ratings developed through a Facilities Rating Methodology that meets the requirements of the FAC reliability standards. Quanta Technology can review a facility's rating methodology and its application to determine if the methodology and processes meet the requirements of the NERC standards.

**System Restoration** – To meet NERC's new EOP-005-2 standard requirements implemented as of July 1, 2013, registered Transmission Operators must verify, at least once every five years, that its system restoration plan accomplishes its intended function. Further, companies often question whether its restoration plan is optimally crafted to restore the system most efficiently. Quanta Technology has broad expertise performing the technical studies to assess, validate and optimize the plan, comparing the plan against stated and required objectives and other industry benchmarks, and offering highly specific technical recommendations to best restore the system efficiently.

**Compliance Program and Processes** – Including new or additional facilities as part of the Bulk Electric System requires that those facilities be part of a corporate compliance enforcement program with a clear culture of compliance for the personnel involved with these facilities. Quanta Technology has extensive experience with compliance program evaluation, design and training.

For further information on Quanta Technology's Internal Control Programs, please contact:

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