⚡EUCI
COURSE

NERC COMPLIANCE FUNDAMENTALS

June 15-16, 2020
Live Streaming

RELATED EVENT:

NERC CIP: A DEEPER DIVE June 16-17

" *"Very helpful to understand the history of NERC and why it was developed. Helped me understand how I can continually prepare myself and my organization for an audit, by reviewing the RSAWs annually."*

Engineer Senior,
Lightstone Generation

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OVERVIEW

Bulk electric system entities registered with the North American Electric Reliability Corporation (NERC) continue to wrestle with the complexities of the NERC reliability standards implementation, compliance, and enforcement process. Full audit schedules within each regional entity ensure that the stakes remain high. Critical Infrastructure Protection (CIP) standards add another level of complexity, further demonstrating to the power industry the difficulties of legislating reliability and security.

With the increasing number of new generation and transmission projects being proposed and built, it's important to understand the implications of being a NERC registered entity and the complicated and costly process of compliance. This course is a great place to start for organizations that are a part of the bulk power system in North America. There are a host of important factors to consider that can have a significant impact on operations. One of the key tenets that supports compliance, or can help mitigate a penalty, is a robust culture of compliance. To demonstrate a culture of compliance, a registered entity must show an enterprise-wide commitment to the process.

This course is an in-depth introduction to NERC standards, compliance, and monitoring and is designed to give the necessary background for all staff to understand the concepts and complexities of NERC compliance in order to communicate and build a culture of compliance and reliability and prepare for upcoming audits.

LEARNING OUTCOMES

- Define the role of FERC, NERC and Regional Entities
- Review the background for the NERC standards and discuss major recent revisions
- Explain how violations are determined and identify which standards are the most violated
- Define a culture of compliance and its importance in the compliance monitoring and enforcement process
- Examine strategies to build an internal compliance program including internal controls
- Analyze the audit process and demonstrate strategies for success before, during, and after an audit
- Examine the NERC CIP requirements: Current version and upcoming revisions
- Discuss emerging trends in NERC compliance including, the Risk Based CMEP, the new and emerging standards on Physical Security, Geomagnetic Disturbances, Distributed Energy Resources, and other emerging topics

WHO SHOULD ATTEND

- NERC registered entity administrative and support staff
- Compliance managers and directors
- Generation owners and operators to include IPPs and renewable energy project developers
- Transmission owners and operators, including merchant transmission projects
- Attorneys and regulators
- Regional entity and RTO/ISO staff

> "*Very good orientation to NERC as an important organization in the electric industry.*"
>
> Compliance Coordinator, NAES Inc.

> "*Very informative and time well spent.*"
>
> Compliance Superintendent, Alameda Municipal Power

AGENDA

MONDAY, JUNE 15, 2020

8:00 – 8:30 am   **Registration and Continental Breakfast**

8:30 am – 5:00 pm   **Course Timing**

12:00 – 1:00 pm   **Group Luncheon**

Overview of NERC Reliability Standards and Requirements
- NERC as the ERO
- Overview of entity registration
- Standards background and drafting process
- Trajectory of standards
  o   Results based standards
  o   Regional standards
- Compliance and enforcement
- Analysis of most violated non-CIP standards: Hot spots for current versions as well as status of revisions
  o   PRC 005
  o   FAC 008/009
- NERC compliance in practice
- Define "culture of compliance" and strategies to build, communicate and demonstrate a culture of compliance, as mandated by NERC
- The role of a culture of compliance in mitigation
- Preparing for an audit: What to do before, during and after an onsite compliance audit: successful strategies and avoiding common pitfalls
- Discuss the settlement process that occurs after a violation has been found
- Recognize how NERC compliance fits with other enterprise compliance needs and risk management
- Managing documentation and evidence
- Demonstrating a culture of compliance to auditors
- Risk Based CMEP and what it means to you

TUESDAY, JUNE 16, 2020

8:00 – 8:30 am   **Continental Breakfast**

8:30 am – 12:00 pm   **Course Timing**

NERC Critical Infrastructure Protection (CIP)
This session will provide an overview of the NERC CIP Reliability Standards and provide insight into what it takes to comply with the same on an ongoing basis.
- Introduction
- History and background of the NERC CIP reliability standards
- Common assumptions and mistakes
- Prevalent NERC CIP compliance challenges
- A word about CIP v5/v6
- Overview of the NERC CIP reliability standards

AGENDA

TUESDAY, JUNE 16, 2020 (CONTINUED)

- NERC CIP v5/v6
    - o   Overview of Version 5 NERC Cyber Security Standards
    - o   Notable differences between Version 3 and Version 5 NERC CIP reliability standards
- Tools and resources
    - o   A few words about "tools" and NERC CIP compliance
    - o   Active vulnerability assessment tools
    - o   Danger: Active scanning of ICS environments is risky business!
    - o   Resources
- Emerging issues and new standard

INSTRUCTORS

Ryan Carlson, CISSP, PSP
Vice President - Critical Infrastructure Protection Services, Proven Compliance Solutions

Ryan has over 25 years of experience in Cyber Security, IT project management, network system engineering, and network/server system administration. Ryan's career has been devoted exclusively to assisting clients with their NERC Critical Infrastructure Protection (CIP) compliance program needs since 2008. Ryan has conducted hundreds of CIP mock audit/gap analysis projects over the last 10 years and participated in dozens of regional CIP audits as an expert advisor, observer, and embedded Subject Matter Expert. Ryan is actively involved in monitoring the CIP Standards development process by attending NERC Critical Infrastructure Protection Committee (CIPC) meetings, as well as numerous NERC/regional CIP user group meetings and conferences. Ryan is an active member of the NERC Compliance Input Working Group (CEIWG) and the NERC Supply Chain Working Group. Ryan is a Certified Information Systems Security Professional (CISSP) and Physical Security Professional (PSP) and holds a Bachelor's Degree in Economics, International Relations and Marketing from the University of Minnesota.

Mitchell E. Needham, P.E.
Vice President – NERC Consultation Services O&P, Proven Compliance Solutions

Mitchell's industry experience spans over 40 years in the electric power industry, including 28 years with the Tennessee Valley Authority prior to working for NERC. Mitchell is both a former NERC Readiness Auditor and Regional Compliance Oversight Liaison for two NERC Regions and received NERC and FERC training in reliability compliance auditing. He has extensive experience conducting actual and mock audits of BES O&P and CIP Reliability Standards with expertise in protective relaying, process development, power system operations, reliability benchmarking, and compliance management. Mitchell is a registered Professional Engineer in the State of Tennessee, holding license #15926 and holds a Master of Science, Electrical Engineering (University of Tennessee - Chattanooga), & Bachelor of Science in Electrical Engineering (University of Tennessee – Knoxville).

OVERVIEW

The electric grid in North America is at the top of the list of critical infrastructures maintained by Presidential Directive by the Department of Homeland Security and it is recognized that the remaining critical infrastructures will not function without a reliable supply of electricity. As a result, cyber and physical security for electric utilities is at the forefront of the legislators and regulators agenda following recent cyber and physical attacks in the US and elsewhere in the world.

To address these risks, the North American Electric Reliability Corporation (NERC) has developed and maintained a set of Critical Infrastructure Protection standards that are mandatory and enforceable. These standards have undergone significant change since they were first adopted in FERC Order 706. These standards have been extended to include all Bulk Electric System Assets and their related Cyber Assets each categorized as High, Medium, and Lower Risk assets thereby extending the program to all registered entities and all bulk electric system assets at some level.

This course will provide a deep fundamental understanding of the NERC CIP standards including a history of their development, an understanding of the present standards, and a view of what is coming in future standard development. The course will also provide a detailed overview of each standard, its fundamental purpose, and the intent of each requirement.

Developing programs to meet the intent of the standard is challenging since compliance with the standards requires disciplines from several key corporate functions including electric system operations, information technology, corporate security, and human resources at a minimum. This course will also review organizational structures for successful implementation and their experiences.

This course will also provide an overview of compliance and monitoring efforts that NERC will conduct for the CIP standards and is designed to give the necessary background for all staff to understand the concepts and complexities of NERC compliance in order to communicate and build a culture of compliance and reliability and prepare for upcoming CIP audits.

LEARNING OUTCOMES

- Review the background for the NERC Critical Infrastructure Protection Standards (CIP) and discuss major recent revisions
- Review the scope and purpose of the NERC CIP Standards
- Examine the NERC CIP requirements in detail
- Review future CIP Standards and discuss how to prepare for them
- Explain how violations are determined and identify which CIP standards are the most violated and why
- Discuss the challenges faced by utilities in defining a compliance program across the corporate functions necessary for CIP compliance (operations, information technology, corporate security, human resources, etc.)
- Analyze the audit process for CIP standards and demonstrate strategies for success before, during, and after an audit

WHO SHOULD ATTEND

- NERC registered entity administrative and support staff
- Compliance managers and directors
- Subject matter experts involved with the CIP standards (Operations, Information Technology, Human Resources, and Corporate/Physical Security)
- Generation owners and operators to include IPPs and renewable energy project developers
- Transmission owners and operators, including merchant transmission projects
- Attorneys and regulators
- Regional entity and RTO/ISO staff

AGENDA

TUESDAY, JUNE 16, 2020

12:30 – 1:00 pm   **Course Registration**

1:00 – 5:00 pm   **Course Timing**

History and Purpose of NERC Critical Infrastructure Protection Standards and Requirements
- History of the CIP Standards
  - o   Urgent Action Standards
  - o   NERC vs. FERC vs. Congress
- 706 Reliability Standards – The first enforceable standards
- Currently enforceable CIP Reliability Standards
  - o   Review of the intent and purpose of each standard
  - o   Understanding each of the requirements
  - o   Resources necessary in meeting the intent
- Meeting the Requirements with outside contractors/vendors
- Analysis of most violated CIP standards

WEDNESDAY, JUNE 17, 2020

8:00 – 8:30 am   **Continental Breakfast**

8:30 am – 5:00 pm   **Course Timing**

12:00 – 1:00 pm   **Group Luncheon**

> " *"This course really helped to define the CIP scope of standards for me."*
>
> I&C Engineer, Zachry Group

History and Purpose of NERC Critical Infrastructure Protection Standards and Requirements - Continued
- Physical security and CIP-014
  - o   Coordination with other physical security requirements
  - o   Common pitfalls
- Audit processes and preparation for CIP Standards
  - o   RSAW preparation
  - o   RSAW Narratives: What are they used for?
  - o   Common pitfalls

CIP Compliance in Practice
- Recognize how NERC compliance fits with other enterprise compliance needs and risk management
- Managing documentation and evidence for audit

Understanding and Populating the NERC CIP Evidence Request Tool in preparing for an audit
- Demonstrating a culture of compliance to auditors for the CIP Standards
- Emerging Issues and New Standards- CIP-003-7, CIP-012-1, CIP-013-1 – Change to CIP-003-8, CIP-005-6, CIP-008-6, CIP-010-3,CIP-012-1, CIP-013-1

INSTRUCTOR

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> **"Substance, substance, substance-just learning, start to finish."**
>
> Assistant General Manager-Power Supply, Burbank Water & Power

> **"This is a great course to attend to gather a better understanding and a deeper knowledge of the NERC CIP standard. I gained exceptional knowledge and examples from this course that is extremely helpful to implementing the standards and to make sure we have the current standards understood correctly and implemented correctly. The course provided great examples, an inside view of what the industry is expected to do and what the auditors expect."**
>
> Corporate Cyber Security Operations Tech Analyst, NPPD

> **"Very informative and an open format for asking questions."**
>
> Engineer Senior, Lightstone Generation

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

INSTRUCTIONAL METHODS

PowerPoint presentations and open discussion will be used in this course.

IACET CREDITS

EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.1 CEUs for the course.

EVENT LOCATION

A room block has been reserved at the **Springhill Suites Chicago/O'Hare**, 8101 W Higgins Rd Chicago, IL 60631, for the nights of June 14-16, 2020. Room rates are US $129 plus applicable tax. Call **1-773-653-2030** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is May 14, 2020 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this course may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

To Register Click Here, or

Mail Directly To:
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PO Box 2303
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PLEASE SELECT

○ **NERC COMPLIANCE FUNDAMENTALS ONLY:**
JUNE 15-16, 2020: US $1195 (Single Connection)

○ **NERC CIP: A DEEPER DIVE ONLY:**
JUNE 16-17, 2020: US $1195 (Single Connection)

○ **SPECIAL COMBO PRICE NERC COMPLIANCE FUNDAMENTALS AND NERC CIP: A DEEPER DIVE COURSES:** JUNE 15-17, 2020: US $2195

For volume discounts call +1.201 871 0474 for quote

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

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