

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Version 5 Critical Infrastructure
Protection Reliability Standards**)
)

Docket No. RM13-5-000

**INFORMATIONAL FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION REGARDING THE
CIP VERSION 5 RELIABILITY STANDARDS IMPLEMENTATION STUDY**

The North American Electric Reliability Corporation (“NERC”)¹ hereby submits to the Federal Energy Regulatory Commission (“FERC” or “Commission”) for informational purposes a description of a pilot program that NERC will conduct during the transition from Version 3 of the Critical Infrastructure Protection Reliability Standards (“CIP Version 3”) to Version 5 of the Critical Infrastructure Protection Reliability Standards (“CIP Version 5”) (the “CIP Implementation Study” or “Study”). On June 24, 2013, NERC provided comments² on the Notice of Proposed Rulemaking issued by the Commission in this proceeding regarding NERC’s proposed CIP Version 5 Reliability Standards.³ In the Comments, NERC stated it would submit an informational filing to the Commission describing the CIP Implementation Study after the issuance of a final rule in this proceeding. NERC submits this informational filing now, rather than after the issuance of a final rule in this proceeding, in order to provide clarity to the Commission and participating Responsible Entities regarding the various components of the CIP Implementation Study, as well as the benefits the Study is expected to provide.

¹ NERC is the Commission-certified electric reliability organization (“ERO”) responsible for the development and enforcement of mandatory Reliability Standards. *See N. Am. Elec. Reliability Corp.*, 116 FERC ¶ 61,062, *order on reh’g and compliance*, 117 FERC ¶ 61,126 (2006), *aff’d sub nom. Alcoa Inc. v. FERC*, 564 F.3d 342 (D.C. Cir. 2009).

² Comments of the North American Electric Reliability Corporation on the Notice of Proposed Rulemaking for Version 5 Critical Infrastructure Protection Reliability Standards (Jun. 24, 2013) (“Comments”).

³ *Version 5 Critical Infrastructure Protection Reliability Standards*, Notice of Proposed Rulemaking, 143 FERC ¶ 61,055 (Apr. 18, 2013), 78 Fed. Reg. 24,107 (Apr. 24, 2013) (“NOPR”).

I. Introduction

The CIP Implementation Study is an important element of a broader program designed by NERC, in conjunction with the Regional Entities, to support all Responsible Entities in their timely, effective, and efficient transition to CIP Version 5. To ensure that Responsible Entities are supported throughout the transition period, the Transition Program will remain in place until at least the date the CIP Version 5 standards become mandatory and enforceable in accordance with a Commission final rule and approved implementation plan.

The first goal of the Transition Program is to improve the industry's understanding of the technical security challenges that need to be addressed in order to comply with CIP Version 5. Emphasis will be placed on the material differences between CIP Version 3 and CIP Version 5. The second goal of the Transition Program is to provide the industry with a clear path and approach to transition from CIP Version 3 to CIP Version 5 that includes expectations for compliance and enforcement. NERC expects that Responsible Entities will learn what evidence they will need to retain to demonstrate compliance with CIP Version 5, and the Regional Entities will develop a consistent view of how to monitor compliance of Responsible Entities within their respective regions. The third and final goal of the Transition Program is to provide stakeholders with the knowledge to understand what technical and compliance-related resources and effort are needed to transition to and manage compliance with CIP Version 5.

In order to achieve the goals stated above, the Transition Program consists of several inter-related elements. Throughout the transition period, NERC expects to provide periodic guidance to industry, conduct ongoing outreach and communications with stakeholders regarding developments related to the implementation of CIP Version 5 (including soliciting stakeholder input and feedback), and provide training to Responsible Entities and the Regional Entities on topics related to CIP Version 5 in a way that is both timely and suited to their needs. NERC also

expects to develop and apply the “identify, assess, and correct” language contained in several CIP Version 5 Reliability Standards in a manner that is consistent with the Reliability Assurance Initiative.

The CIP Implementation Study, the focus of this filing, is an important element of the CIP Transition Program. From October 2013 to April 2014 (the “Study Period”), NERC and the Regional Entities will oversee and engage with a small, select group of Responsible Entities (the “Study Participants”). During the Study Period, each Responsible Entity will focus on different aspects of the transition to CIP Version 5. The aggregate experience and information obtained by NERC and the Regional Entities through the Study should allow NERC to provide guidance for all of industry on likely challenges and successful approaches associated with the transition. This information will be shared with industry throughout the Study Period, the concluding report will summarize Study results and provide lessons learned to NERC and Responsible Entities, and the findings from the Study will be used to support the ongoing training, guidance, and communication components of the Transition Program.

II. Background

On February 1, 2013, NERC filed a petition⁴ seeking the Commission’s approval of CIP Version 5, which is currently pending before the Commission. On April 18, 2013, the Commission issued the NOPR, in which it proposed to approve CIP Version 5 as well as NERC’s proposed implementation plan.⁵ If approved, the implementation plan would allow Responsible Entities to transition directly from compliance with the currently-effective CIP Version 3 to compliance with the proposed CIP Version 5, thereby bypassing implementation of

⁴ Petition of the North American Electric Reliability Corporation for Approval of Critical Infrastructure Protection Reliability Standards Version 5 (Feb. 1, 2013) (“Petition”).

⁵ NOPR at PP 1, 89.

Version 4 of the CIP Reliability Standards.⁶ In the NOPR, the Commission also sought comments on certain aspects of proposed CIP Version 5. Among other things, the Commission sought comments regarding the necessity of the implementation periods proposed by NERC in the proposed implementation plan.⁷ The Commission also sought comments regarding the enforceability of the self-correcting language contained in several requirements of CIP Version 5.⁸

In its Comments, NERC explained that the proposed CIP Version 5 implementation periods are necessary in order for NERC to develop and implement the CIP Implementation Study, learn from the Study Participants' implementation of CIP Version 5, and disseminate best practices and lessons learned.⁹ As also explained in the Comments, the CIP Implementation Study would allow NERC and the Regional Entities to make adjustments in their systems and approach to compliance with CIP Version 5 while obtaining experience with the entities in the Study.

As noted above, NERC submits this filing now, while the Petition is pending, in order to provide clarity to the Commission and to Study Participants regarding the timing, objectives, methodology, and waiver provisions of the CIP Implementation Study. NERC also clarifies how the CIP Implementation Study will facilitate a more-effective transition to CIP Version 5 for all Responsible Entities as well as NERC and the Regional Entities.

⁶ *Id.* at P 89; *see also* Petition at Ex. B, *Implementation Plan for Version 5 CIP Cyber Security Standards* (Oct. 26, 2012).

⁷ NOPR at PP 9, 40.

⁸ Seventeen requirements in the proposed CIP Version 5 include language that requires a Responsible Entity to implement one or more documented processes or programs in a manner that allows it to “identify, assess, and correct” deficiencies. *See* NOPR at PP 4, 46.

⁹ Comments at p. 40.

III. The CIP Implementation Study

The CIP Implementation Study will allow a small, select group of Responsible Entities to transition directly to compliance with CIP Version 5 from compliance with currently-effective CIP Version 3 in a shorter timeframe than contemplated by the proposed implementation plan and with support and review by NERC and the applicable Regional Entities. While many Responsible Entities expressed an interest in participating in the Study, NERC determined that the Study would be conducted best with a small but representative sample of functional entities and assets. In selecting Study Participants, NERC and the Regional Entities chose only those Responsible Entities with a proven record of success in CIP Version 3 compliance. Based on their past performances and willingness to engage on difficult issues, NERC has a high degree of confidence in the ability of the Study Participants to transition to effective internal controls for cyber security. In order to facilitate an expedited transition to CIP Version 5, NERC, in its discretion, opted to provide a waiver of compliance with the requirements of CIP Version 3 to the Study Participants, which is explained in greater detail below.

The Study should provide valuable feedback that will guide how NERC and the Regional Entities audit Responsible Entities and evaluate compliance with those CIP Version 5 requirements containing “identify, assess, and correct” language.¹⁰ In particular, the CIP Implementation Study should allow NERC and the Regional Entities to test potential approaches and technical trigger points for determining when a “deficiency” (that is, noncompliance with a Requirement of CIP Version 5) should be considered as a Possible Violation. The trigger points will be defined based on the technical controls associated with each Requirement as well as the effectiveness of the controls designed to identify, assess or correct a deficiency. For example,

¹⁰ *Id.* at pp. 5, 40.

triggers may be tied to the number and type of assets affected by a particular deficiency or the amount of time that elapsed before a deficiency was identified through a given control.

Among other things, this feedback will inform whether and how NERC will adjust its Reliability Standard Audit Worksheets (“RSAWs”), one of several compliance tools NERC is developing to ensure that the CIP Version 5 Reliability Standards are audited and enforced consistently and effectively across the ERO enterprise.¹¹

The Study should enhance the likelihood of success of the transition to CIP Version 5 and support the overall goals of the Transition Program. NERC has learned from prior transitions that there are a myriad of issues that could occur and could result in a spike in noncompliance that is associated with uncertainty as to the best approaches to be adopted during a transition. There is a great deal of interest by NERC and its stakeholders to ensure that CIP Version 5 is implemented in a timely manner that enhances cyber security without imposing unnecessary or burdensome administrative process. To ensure that all Responsible Entities are adequately prepared to implement CIP Version 5, NERC expects to keep industry informed regarding progress compared with key Study milestones, key issues that arise and solutions to address them, lessons that are learned by Study Participants throughout the Study, best technical practices to meet the intent of CIP Version 5, best practices to demonstrate compliance with CIP Version 5, and recommendations for future action outside the scope of the Study.

a. Timing of the Study and Related Considerations

The CIP Implementation Study commenced in October 2013. The Study will conclude in April 2014 in order to provide the most useful information to the industry as soon as possible. NERC will share information learned through the Study with industry and other stakeholders throughout the Study Period. Information may be shared through publication on the NERC

¹¹ See Comments at n. 10 and p. 40.

website, webinars, or through other means. Following the conclusion of the Study, NERC and the Regional Entities will prepare a report that identifies key conclusions, lessons learned, and recommendations for transition to CIP Version 5.

Study Participants will be expected to continue to implement CIP Version 5 following the formal conclusion of the Study, as is described in more detail below. (The waiver of compliance with CIP Version 3 requirements, which is also discussed below, will extend until the date in which CIP Version 5 becomes mandatory and enforceable in accordance with a Commission final rule and approved implementation plan.)

Although the Study will conclude in April 2014, the Transition Program will continue to offer guidance, outreach, and training for Study Participants and non-participating Responsible Entities alike throughout the remainder of the transition period, until at least the date CIP Version 5 becomes mandatory and enforceable in accordance with a Commission final order and approved implementation plan.

b. Objective

CIP Version 5 represents a significant improvement – and change – over the currently-effective CIP Version 3, as it adopts new cyber security controls and extends the scope of systems that are protected by the CIP Reliability Standards. As part of the overall Transition Program, the CIP Implementation Study is designed to help NERC, Responsible Entities, and the Regional Entities implement CIP Version 5 in a manner that is timely, efficient, and meets the overall intent of CIP Version 5.

The goals of the CIP Implementation Study are consistent with and support the overall goals of the Transition Program. First, the Study will determine the technical challenges and compliance issues that need to be addressed in connection with CIP Version 5. Second, the Study will provide information that will help develop a common understanding of the

compliance and enforcement expectations for the transition to as well as the enforcement of CIP Version 5. Responsible Entities will learn what evidence they should retain in order to demonstrate compliance with CIP Version 5, and the Regional Entities will have a consistent view of how to monitor compliance of Responsible Entities within their respective regions. Lastly, NERC and the Regional Entities intend to improve the consistency, transparency, and awareness of CIP Version 5 by communicating the progress and results of the Study periodically to various stakeholders. By achieving these three goals, the CIP Implementation Study should facilitate an efficient and timely transition to CIP Version 5 for all Responsible Entities.

c. Study Participants

NERC and the Regional Entities have selected seven entities to participate in the Study. As noted above, NERC and the Regional Entities chose a small but representative group of Study Participants. In selecting Study Participants from the pool of interested Responsible Entities, NERC considered the compliance history and performance of each Responsible Entity, the diversity of the Responsible Entity's systems (including generation, substation, and control center assets), the Responsible Entity's willingness to address challenging compliance issues proactively and engage with NERC and the Regional Entities, and whether the Responsible Entity could devote sufficient resources to participate in the Study. Only Responsible Entities with strong CIP Version 3 compliance histories were invited to participate in the Study.

d. Methodology

The CIP Implementation Study contemplates ongoing review and frequent communication between each Study Participant, NERC, and the applicable Regional Entity as the Study Participant prepares for and begins the transition to CIP Version 5. During the Study Period, NERC and the applicable Regional Entity will receive a progress report from each Study

Participant every two weeks and meet, by teleconference or video conference, to discuss transition progress.

At the start of the Study, NERC and the applicable Regional Entity will perform a baseline review to measure each Study Participant's status in complying with the currently-effective CIP Version 3. Although no new possible violations of CIP Version 3 discovered during the Study Period through this baseline review or through any other means will be processed by enforcement, Study Participants must address newly-identified or open mitigating issues as a condition of their continued participation in the Study. To the extent possible, mitigating activities must align with the corresponding CIP Version 5 requirements. In other words, rather than implementing mitigating activities designed to achieve compliance with CIP Version 3, Study Participants will be expected to prioritize implementation of corresponding requirements under CIP Version 5.

Following the baseline review, NERC, the applicable Regional Entity, and each Study Participant will work together to develop a custom-tailored approach to guide the Study Participant's transition to CIP Version 5. For example, certain Study Participants may focus on the asset identification issues, while others may place a greater emphasis on a specific portion of the technical controls. Each Study Participant will be provided with the CIP Version 5 RSAWs and will be instructed to complete them. NERC and the applicable Regional Entity will then meet with the Study Participant to discuss the completed RSAWs. Based on the review of the RSAWs and the resulting discussion, NERC, the applicable Regional Entity, and the Study Participant will discuss the Study Participant's possible approaches for the CIP Version 5 transition. Working together, and taking into consideration the priorities each Study Participant has set for itself for the transition as well as other potentially relevant factors, NERC, the

applicable Regional Entity, and the Study Participant will identify a preferred customized approach for the transition, document the approach, and identify any expected implementation challenges.

Study Participants will then begin the transition to compliance with CIP Version 5 in accordance with their customized transition plans. NERC and the applicable Regional Entities will work with the Study Participants to overcome any implementation challenges as they are identified in the bi-weekly report meetings. Also, to the extent that a Commission order results in modifications to CIP Version 5 during the Study Period, the RSAWs will be revised and any implementation changes or adjustments will be discussed and addressed among NERC, the Regional Entities, and the Study Participants.

Toward the end of the Study Period, NERC and the applicable Regional Entity will perform an on-site review of CIP Version 5 for each Study Participant. This review will consider how the Study Participant implemented each requirement of CIP Version 5 for a specified scope of assets and determine how effective the Study Participant was in achieving full compliance.

NERC and the applicable Regional Entity will work with each Study Participant to interview key personnel in the Study Participant's transition implementation team to receive feedback regarding implementation successes and challenges. Particularly, NERC and the Regional Entity will look to identify: (1) what methods, approaches, and policies were effective in implementing the technical controls of CIP Version 5; (2) what obstacles were encountered; (3) what portions of the transition implementation differed from expectations; (4) what, if any, Requirements posed particularly difficult challenges; (5) what the Study Participant would do differently with the benefit of hindsight; (6) what tools, policies, and training were effective in

aligning employees' skills and cooperation with the Study Participant's mission and the CIP Version 5 Reliability Standards; and (7) what, if any, business challenges were presented by the transition implementation.

Each Study Participant will also work with NERC and the applicable Regional Entity to develop a roadmap for completing its transition to CIP Version 5 after the conclusion of the Study. NERC and the applicable Regional Entity will use this roadmap in evaluating the sufficiency of the Study Participant's transition activities throughout the remainder of the transition period and for continuing to develop guidance that may be useful to industry under the auspices of the Transition Program.

NERC and the Regional Entities will communicate findings from the CIP Implementation Study to industry throughout the Study Period in order to assist all Responsible Entities in making an efficient and timely transition to CIP Version 5. Additionally, feedback from Study Participants will inform CIP Version 5 compliance and enforcement approaches of NERC and the Regional Entities, including informing whether and how to modify the RSAWs.

Following the conclusion of the Study, NERC and the Regional Entities will prepare and publish a final CIP Implementation Study Report that will identify key conclusions, lessons learned, and recommendations for transition to CIP Version 5. NERC expects to share the information learned through the study publicly on the NERC website and through other outreach mechanisms, such as webinars and training sessions. Depending on the results of the Study, NERC expects that a number of topics will be addressed, including the important differences between CIP Version 3 and CIP Version 5, key issues and challenges faced by Study Participants during the Study and how these issues were resolved, technical security practices needed to meet the CIP Version 5 requirements, and practices needed to demonstrate compliance with CIP

Version 5 requirements, including effective internal controls to identify, assess, or correct a deficiency.

IV. Waiver of Compliance with CIP Version 3

The transition from currently-effective CIP Version 3 to CIP Version 5 will require Responsible Entities to invest significant time and resources on compliance-related activities. Those Responsible Entities participating in the CIP Implementation Study will be implementing CIP Version 5 on an expedited basis and for the benefit of creating efficiency-enhancing guidance for the rest of the industry. In order to allow Study Participants to dedicate their specialized staffing and resources to developing solutions to address the challenges associated with their transition to CIP Version 5 (such as developing new technical requirements and effective internal controls), NERC, in its discretion, has opted to provide each of the Study Participants with a waiver of compliance with CIP Version 3. The waiver is also necessary because, in transitioning from CIP Version 3 to CIP Version 5, there will be instances where an entity cannot maintain full compliance with the CIP Version 3 requirements. Among other things, these instances will be more specifically identified as part of the CIP Implementation Study.

Specifically, NERC and the Regional Entities will not conduct compliance monitoring activities or pursue enforcement actions related to CIP Version 3 for this limited set of Study Participants during the Study Period and following the Study Period until the mandatory and enforceable date of CIP Version 5. Following the conclusion of the Study, Study Participants will be expected to continue to progress toward implementation of CIP Version 5, and NERC and the Regional Entities will monitor that progress periodically and work with Study Participants to identify any necessary activities to mitigate outstanding issues. Study Participants will be subject to compliance monitoring and enforcement activities with CIP Version 5 only

when CIP Version 5 becomes mandatory and enforceable in accordance with a Commission final rule and approved implementation plan.

This compliance waiver contains important limitations and conditions. First, the compliance waiver will apply only to compliance with currently-effective CIP Version 3. Study Participants will continue to be required to comply with all other Reliability Standards applicable to them in accordance with the functions for which they are registered. Second, the compliance waiver is conditioned on each Study Participant's continued participation in the CIP Implementation Study. If NERC determines that a Study Participant has failed to comply with Study-stated timelines or goals, the Study Participant may be removed from the Study. Upon being removed from the Study, the former Study Participant will be subject to compliance with CIP Version 3 until CIP Version 5 becomes mandatory and enforceable in accordance with a Commission final rule and approved implementation plan. Similarly, if a Study Participant voluntarily ceases to participate in the Study, it will be subject to compliance with CIP Version 3 until CIP Version 5 becomes mandatory and enforceable in accordance with a Commission final rule and approved implementation plan.

NERC does not anticipate that the compliance waiver described above will create a gap in reliability. NERC and the Regional Entities will have ongoing oversight and review of the implementation activities of the Study Participants over the course of the Study. Additionally, NERC has selected for participation in the CIP Implementation Study only those Responsible Entities with strong corporate compliance cultures. Furthermore, each of the Study Participants has volunteered to participate and has the ability to transition to CIP Version 5 on an expedited basis. Thus, rather than create a gap in reliability, the compliance waiver will help facilitate participation in the Study and a smoother transition to CIP Version 5.

V. Conclusion

NERC submits this informational filing to advise the Commission regarding the timing, methodology, and CIP Version 3 compliance waiver provisions of the CIP Implementation Study. The Study will allow all Responsible Entities to benefit from lessons learned and best practices for making an effective and timely transition from currently-effective CIP Version 3 to CIP Version 5.

Respectfully submitted,

/s/ Sonia C. Mendonça

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Dated: October 11, 2013

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 11th day of October, 2013.

/s/ Sonia C. Mendonça

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