

the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020-02-18 Gulfstream Aerospace

Corporation: Amendment 39-21026; Docket No. FAA-2020-0116; Product Identifier 2019-CE-060-AD.

(a) Effective Date

This AD is effective February 13, 2020.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Gulfstream Aerospace Corporation Models GVI, GVII-G500, and GVII-G600 airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/ Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Unsafe Condition

This AD was prompted by reports of continued flight after the flight control computer (FCC) has commanded flight control surfaces into a damped-by-pass mode (surface shutdown). If flight is continued after a flight control surface shutdown, the airplane is left without protection against flight control surface hard-over and force fight events. The FAA is issuing this AD to provide operating limitations and flight crew procedures in the event of loss of protection against flight control surface hard-over and force fight events. The unsafe condition, if not addressed, could result in loss of structural integrity and loss of control of the airplane.

(f) Actions and Compliance

Comply with this AD within 15 days after February 13, 2020 (the effective date of this AD), unless already done.

(1) Revise the airplane flight manual (AFM) for your airplane by attaching the applicable airplane flight manual supplement (AFMS) specified in paragraphs (f)(1)(i) through (iv) of this AD. When these flight manual changes have been included in a future revision of the AFM, you may insert the revisions in the limitations, abnormal procedures, and emergency procedures sections of the AFM, provided the information is identical to that in the AFMS, and then you may remove the AFMS.

(i) Gulfstream Aerospace G650 Airplane Flight Manual Supplement No. G650-2019-04, dated December 16, 2019.

(ii) Gulfstream Aerospace G650ER Airplane Flight Manual Supplement No. G650ER-2019-04, dated December 16, 2019.

(iii) Gulfstream Aerospace GVII-G500 Airplane Flight Manual Supplement No. GVII-G500-2019-08, dated December 16, 2019.

(iv) Gulfstream Aerospace G600 Airplane Flight Manual Supplement No. GVII-G600-2019-02, dated December 16, 2019.

(2) The action required by paragraph (f)(1) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1) through (4), and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(g) Special Flight Permit

Special flight permits are prohibited for this AD in accordance with 14 CFR 39.23.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

For more information about this AD, contact Myles Jalalian, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5572; fax: (404) 474-5606; email: myles.jalalian@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Gulfstream Aerospace G650 Airplane Flight Manual Supplement No. G650-2019-04, dated December 16, 2019.

(ii) Gulfstream Aerospace G650ER Airplane Flight Manual Supplement No. G650ER-2019-04, dated December 16, 2019.

(iii) Gulfstream Aerospace GVII-G500 Airplane Flight Manual Supplement No. GVII-G500-2019-08, dated December 16, 2019.

(iv) Gulfstream Aerospace G600 Airplane Flight Manual Supplement No. GVII-G600-2019-02, dated December 16, 2019.

(3) For service information identified in this AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone: (800) 810-4853; fax: (912) 965-3520; email: pubs@gulfstream.com; internet:

<https://www.gulfstream.com/customer-support>.

(4) You may view this service information at FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on January 27, 2020.

Patrick R. Mullen,

Aircraft Certification Service, Manager, Small Airplane Standards Branch, AIR-690.

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DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Part 40

[Docket No. RM19-10-000]

Transmission Planning Reliability Standard TPL-001-5

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Final rule.

SUMMARY: The Federal Energy Regulatory Commission (Commission) approves Reliability Standard TPL-001-5 (Transmission System Planning Performance Requirements), submitted by the North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization.

DATES: *Effective Date:* This rule will become effective April 13, 2020.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

1. Pursuant to section 215(d)(2) of the Federal Power Act (FPA), the Commission approves Reliability Standard TPL-001-5 (Transmission System Planning Performance

Requirements).¹ The North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO), submitted Reliability Standard TPL–001–5 for Commission approval in response to directives in Order No. 786.² As discussed in this final rule, we determine that Reliability Standard TPL–001–5 improves upon currently-effective Reliability Standard TPL–001–4 by addressing: (1) The study of single points of failure of protection systems; and (2) planned maintenance outages and stability analysis for spare equipment strategies.

2. The improvements in Reliability Standard TPL–001–5 are responsive to the directives in Order No. 786 regarding planned maintenance outages and stability analysis for spare equipment strategies.³ Reliability Standard TPL–001–5 is responsive in that it requires each planning coordinator and transmission planner to perform an annual planning assessment of its portion of the bulk electric system considering a number of system conditions and contingencies with a risk-based approach. The improvements in Reliability Standard TPL–001–5 are also responsive to the concerns identified in Order No. 754 regarding the study of a single point of failure on protection systems.⁴ Reliability Standard TPL–001–5 contains revisions to the planning events (Category P5) and extreme events (Stability 2.a–h) identified in Table 1 (Steady State and Stability Performance Planning Events and Steady State and Stability Performance Extreme Events), as well as the associated footnote 13, to provide for a more comprehensive study of the potential impacts of protection system single points of failure.

3. For more common scenarios (*i.e.*, planning events), the planning entity must develop a corrective action plan if it determines through studies that its system would experience performance issues.⁵ For less common scenarios that could result in potentially severe impacts such as cascading (*i.e.*, extreme events), the planning entity must conduct a comprehensive analysis to understand both the potential impacts on its system and the types of actions

that could reduce or mitigate those impacts.⁶

4. Reliability Standard TPL–001–5 is also responsive to Order No. 786 by modifying the requirements for stability analysis to require an entity to assess the impact of the possible unavailability of long lead time equipment, consistent with the entity's spare equipment strategy. Accordingly, pursuant to section 215(d)(2) of the FPA, the Commission approves Reliability Standard TPL–001–5 as just, reasonable, not unduly discriminatory or preferential, and in the public interest.

5. In the Notice of Proposed Rulemaking (NPR), the Commission proposed to direct NERC, pursuant to section 215(d)(5) of the FPA, to modify the Reliability Standard to require corrective action plans for protection system single points of failure in combination with a three-phase fault if planning studies indicate potential cascading.⁷ As discussed below, we determine not to adopt the proposed directive.

I. Background

A. Section 215 and Mandatory Reliability Standards

6. Section 215 of the FPA requires the Commission to certify an ERO to develop mandatory and enforceable Reliability Standards, subject to Commission review and approval. Once approved, the Reliability Standards may be enforced in the United States by the ERO, subject to Commission oversight, or by the Commission independently.⁸ Pursuant to section 215 of the FPA, the Commission established a process to select and certify an ERO,⁹ and subsequently certified NERC.¹⁰

B. Industry Advisory

7. On March 30, 2009, NERC issued an advisory report notifying industry that failure of a single component of a

protection system caused three significant system disturbances in the previous five years.¹¹ In the Industry Advisory, NERC stated that “[p]rotection system component failures may render a protective scheme inoperative, which could result in N–1 transmission system contingencies evolving into more severe or even extreme events.”¹² NERC advised registered transmission owners, generator owners, and distribution providers “to address single points of failure on their protection systems, when identified in routine system evaluations, to prevent N–1 transmission system contingencies from evolving into more severe events or even extreme events.”¹³ NERC also advised industry to begin preparing an estimate of the resource commitment required to review, re-engineer, and develop a workable outage and construction schedule to address single points of failure.

C. Order No. 754

8. On November 17, 2009, NERC submitted a petition requesting approval of NERC's interpretation of Reliability Standard TPL–002–2, Requirement R1.3.10. In the resulting Order No. 754, the Commission determined that “there may be a system protection issue that merits further exploration by technical experts” and that there is “an issue concerning the study of the non-operation of non-redundant primary protection systems; *e.g.*, the study of a single point of failure on protection systems.”¹⁴ To address this concern, the Commission directed “Commission staff to meet with NERC and its appropriate subject matter experts to explore the reliability concern, including where it can best be addressed, and identify any additional actions necessary to address the matter.”¹⁵ The Commission also directed NERC “to make an informational filing . . . explaining whether there is a further system protection issue that needs to be addressed and, if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.”¹⁶

¹¹ Industry Advisory, Protection System Single Point of Failure (March 30, 2009), <https://www.nerc.com/pa/rrm/bpsa/Alerts%20DL/2009%20Advisories/A-2009-03-30-01.pdf> (Industry Advisory).

¹² *Id.* at 2.

¹³ *Id.* at 1.

¹⁴ Order No. 754, 136 FERC ¶ 61,186, at P 19 (2011).

¹⁵ *Id.* P 20.

¹⁶ *Id.*

¹ 16 U.S.C. 824o(d)(2).

² *Transmission Planning Reliability Standards*, Order No. 786, 145 FERC ¶ 61,051 (2013).

³ Order No. 786, 145 FERC ¶ 61,051, at PP 40, 89.

⁴ *Interpretation of Transmission Planning Reliability Standard*, Order No. 754, 136 FERC ¶ 61,186, at P 19 (2011).

⁵ NERC defines “Corrective Action Plan” as, “A list of actions and an associated timetable for implementation to remedy a specific problem.” Glossary of Terms Used in NERC Reliability Standards (May 13, 2019) (NERC Glossary).

⁶ NERC defines “Cascading” as, “The uncontrolled successive loss of System Elements triggered by an incident at any location. Cascading results in widespread electric service interruption that cannot be restrained from sequentially spreading beyond an area predetermined by studies.” NERC Glossary.

⁷ 16 U.S.C. 824o(d)(5); *Transmission Planning Reliability Standard TPL–001–5*, Notice of Proposed Rulemaking, 84 FR 30,639 (Jun. 27, 2019), 167 FERC ¶ 61,249, at P 5 (2019) (NPR).

⁸ *Id.* 824o(e).

⁹ *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, 114 FERC ¶ 61,104, *order on reh'g*, Order No. 672–A, 114 FERC ¶ 61,328 (2006).

¹⁰ *North American Electric 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 1342 (D.C. Cir. 2009).

9. Commission staff then hosted a technical conference in October 2011 on single points of failure, which resulted in four consensus points and the following problem statement: “[t]he group perceives a reliability concern regarding the comprehensive assessment of potential protection system failures by registered entities. The group agrees on the need to study if a [reliability] gap exists regarding the study and resolution of a single point of failure on protection systems.”¹⁷ One outcome of the 2011 technical conference, as described in the 2012 Informational Filing, was that the NERC Board of Trustees approved the issuance of a data request to aid in assessing whether single points of failure in protection systems pose a reliability concern.¹⁸

10. Over the next two years, NERC collected data from transmission planners that it used to assess protection system single points of failure. This assessment examined in detail the protection systems related to nearly 4,000 buses. The findings were presented in a September 2015 report that concluded that single points of failure on protection systems posed a reliability risk that warranted further action.¹⁹ After considering alternatives, the 2015 Report recommended that NERC modify Reliability Standard TPL–001–4 to maximize reliability of protection system performance and align with the directives in Order No. 754. In particular, the 2015 Report recommended that three-phase faults involving protection system failures be assessed as an extreme event in Reliability Standard TPL–001–4. As an extreme event under Reliability Standard TPL–001–4, Part 4.5, an entity is required to evaluate, but not implement, possible actions designed to mitigate cascading.²⁰ Notably however, the report did not recommend elevating three-phase faults with a protection system failure to a planning event under Part 2.7, which requires a corrective action plan when analysis indicates an inability to meet performance requirements. The report explained that the “[p]robability of three-phase fault with a protection system failure is low

enough that it does not warrant a planning event.”²¹

D. Order No. 786

11. In Order No. 786, the Commission approved the currently-effective version of the transmission system planning standard, Reliability Standard TPL–001–4, and issued several directives to NERC. First, the Commission expressed concern that the six (6) month outage duration threshold in Reliability Standard TPL–001–4, Requirement R1 could exclude planned maintenance outages of significant facilities from future planning assessments.²² The Commission determined that planned maintenance outages of less than six (6) months in duration may result in relevant impacts during one or both of the seasonal off-peak periods, and that prudent transmission planning should consider maintenance outages at those load levels when planned outages are performed to allow for a single element to be taken out of service for maintenance without compromising the ability of the system to meet demand without loss of load. The Commission further determined that a properly planned transmission system should ensure the known, planned removal of facilities (*i.e.*, generation, transmission, or protection system facilities) for maintenance purposes without the loss of nonconsequential load or detrimental impacts to system reliability such as cascading, voltage instability, or uncontrolled islanding. The Commission directed NERC to modify the Reliability Standards to address these concerns.

12. Second, while stating that NERC had met the Commission’s Order No. 693 directive to include a spare equipment strategy for steady state analysis in Reliability Standard TPL–001–4, the Commission determined that a spare equipment strategy for stability analysis was not addressed in the standard.²³ The Commission stated that a similar spare equipment strategy for stability analysis should exist that requires studies to be performed for no or single contingency categories²⁴ with the conditions that the system is expected to experience during the possible unavailability of the long lead time equipment. Rather than direct a change at that time, however, the

Commission directed NERC to consider the issue during the next review cycle of Reliability Standard TPL–001–4.²⁵

E. NERC Petition and Reliability Standard TPL–001–5

13. On December 7, 2018, NERC submitted Reliability Standard TPL–001–5 for Commission approval.²⁶ NERC maintains that Reliability Standard TPL–001–5 addresses the Order No. 786 directives. With regard to protection system single points of failure, NERC indicates that Table 1 of Reliability Standard TPL–001–5 describes system performance requirements for a range of potential system contingencies required to be evaluated by the planner.²⁷ Table 1 includes three parts: (1) Steady State & Stability Performance Planning Events; (2) Steady State & Stability Performance Extreme Events; and (3) Steady State & Stability Performance Footnotes. Table 1 describes system performance requirements for a range of potential system contingencies required to be evaluated by the planner. The table categorizes the events as either “planning events” or “extreme events.” The table lists seven contingency planning events (P1 through P7) that require steady-state and stability analysis as well as five extreme event contingencies: Three for steady-state and two for stability.

14. According to NERC, Reliability Standard TPL–001–5 includes certain modifications to better ensure that planning entities are performing a more complete analysis of potential protection system single points of failure issues on their systems and taking appropriate action to address these concerns. NERC explains that Reliability Standard TPL–001–5 contains revisions to both the Table 1 planning event (Category P5) and extreme events (Stability 2.a–h) and the associated footnote 13 to provide for more comprehensive study of the potential impacts of protection system single points of failure.

²⁵ Order No. 786, 145 FERC ¶ 61,051 at PP 88–89.

²⁶ Reliability Standard TPL–001–5 is available on the Commission’s eLibrary document retrieval system in Docket No. RM19–10–000 and on the NERC website, www.nerc.com.

²⁷ Reliability Standard TPL–001–5 includes an expanded list of protection system components for single points of failure studies. The selected list of components account for: (1) Those failed non-redundant components of a protection system that may impact one or more protection systems; (2) the duration that faults remain energized until delayed fault clearing; and (3) the additional system equipment removed from service following fault clearing depending on the specific failed non-redundant component of a protection system. NERC Petition at 16.

¹⁷ NERC, Order No. 754 Single Point of Failure Technical Meeting Notes at 8 (October 24–25, 2011).

¹⁸ 2012 NERC Informational Filing at 7 (stating that the data request “is based on an approach that utilizes . . . a three-phase (3Ø) fault and assesses simulated system performance against performance measures”).

¹⁹ NERC, Order No. 754 Assessment of Protection System Single Points of Failure Based on the Section 1600 Data Request, at 11 (September 2015) (2015 Report).

²⁰ *Id.*

²¹ *Id.* at 9.

²² Order No. 786, 145 FERC ¶ 61,051 at PP 40–45.

²³ *Id.* PP 85, 88–89 (citing *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, 118 FERC ¶ 61,218, at P 1786, *order on reh’g*, Order No. 693–A, 120 FERC ¶ 61,053 (2007)).

²⁴ See Reliability Standard TPL–001–4, Table 1—Steady State & Stability Performance Planning Events, Categories P0, P1, and P2.

15. NERC states that where the study of a protection system single point of failure for a single-line-to-ground fault (*i.e.*, a Category P5 event) identifies cascading, a corrective action plan is required.²⁸ NERC considers this a relatively commonplace scenario, and NERC explains that an entity would be required to develop a corrective action plan if it determines that its system would be unable to meet the performance requirements of Table 1 for the Category P5 event.

16. In contrast, the revisions treat a protection system single point of failure in combination with a three-phase fault as an extreme event that does not require a corrective action plan. NERC asserts that the three-phase fault scenario is much less common than the single-line-to-ground fault scenario. According to NERC, like the other extreme events in Reliability Standard TPL–001–5, the three-phase fault scenario, while rare, could result in more significant impacts to an entity's system.²⁹ Under this approach, if an entity determines that its system will experience cascading as a result of a three-phase fault scenario, the entity would evaluate possible actions designed to reduce the likelihood or mitigate the consequences of the event; however, a corrective action plan would not be required.

17. NERC explains that the likelihood of a three-phase fault event occurring and resulting in the most severe impacts would be small based on an historical analysis of NERC data on protection system misoperation. NERC states that it reviewed over 12,000 protection system misoperation in its Misoperation Information Data Analysis System database reported since 2011, of which only 28 involved three-phase faults. Of those, NERC states that 10 involved breakers that failed to operate, and the remaining 18 involved breakers that were slow to operate.³⁰ NERC contends that a failure to operate may indicate an instance of a protection system single point of failure. While the potential for severe impacts from such events remains, NERC asserts that none of the 10 failure to trip scenarios reported since 2011 resulted in events that reached the threshold for reporting

under Reliability Standard EOP–004 (Event Reporting).³¹ With regard to the Order No. 786 directives, NERC maintains that Reliability Standard TPL–001–5 provides for a more complete consideration of factors for selecting which known outages will be included in near-term transmission planning horizon studies.

F. Notice of Proposed Rulemaking

18. On June 20, 2019, the Commission issued a NOPR that proposed to approve Reliability Standard TPL–001–5 as the Reliability Standard largely addresses the directives in Order No. 786. The NOPR also proposed to direct NERC, pursuant to section 215(d)(5) of the FPA, to modify the Reliability Standard to require corrective action plans for protection system single points of failure in combination with a three-phase fault if planning studies indicate potential cascading.³² The NOPR stated that NERC had not adequately justified categorizing protection system single points of failure in combination with a three-phase fault as an extreme event that only requires study, but not a corrective action plan, when there is the potential for cascading. The NOPR also expressed concern with NERC's assessment that such events do not necessitate corrective action plans because of their rarity. The NOPR proposed to direct NERC to submit the modified Reliability Standard for approval within twelve (12) months from the effective date of a final rule.

19. In addition to inviting comment on the proposed directive, the NOPR sought comment on: (1) How many corrective action plans are expected for protection system single points of failure in combination with a three-phase fault if a study indicates cascading, so the Commission could better understand the potential for increased costs and other implementation issues; and (2) the Commission's proposal to direct NERC address the directive within twelve (12) months of the effective date of the final rule.

20. The Commission received ten sets of NOPR comments. We address below the issues raised in the NOPR and the comments submitted in response. The Appendix to this final rule lists the entities that filed comments.

II. Discussion

21. Pursuant to section 215(d)(2) of the FPA, the Commission approves Reliability Standard TPL–001–5 as just, reasonable, not unduly discriminatory or preferential, and in the public interest. We conclude that Reliability Standard TPL–001–5 is an improvement over currently-effective Reliability Standard TPL–001–4 and will improve Bulk-Power System reliability by requiring enhanced transmission system planning regarding the study of protection system single points of failure in combination with a single-line-to-ground fault, as discussed in Order No. 754. The Commission also approves the associated violation risk factors, violation severity levels, and implementation plan.

22. The Commission determines that Reliability Standard TPL–001–5 satisfies the Order No. 786 directives regarding planned maintenance outages and stability analysis for spare equipment strategies. First, Reliability Standard TPL–001–5 provides for a more complete consideration of factors for selecting which known outages will be included in near-term transmission planning horizon studies. The modifications in Reliability Standard TPL–001–5 also address the Commission's concern that the exclusion of known outages of less than six (6) months in currently-effective Reliability Standard TPL–001–4 could result in outages of significant facilities not being studied. Second, Reliability Standard TPL–001–5 modifies requirements for stability analysis to require an entity to assess the impact of the possible unavailability of long lead time equipment, consistent with the entity's spare equipment strategy. For these reasons, the Commission approves Reliability Standard TPL–001–5.

23. In addition, the Commission determines not to direct NERC to develop and submit modifications to the Reliability Standards to require corrective action plans to address protection system single points of failure in combination with a three-phase fault if planning studies indicate potential cascading. We are persuaded by NERC and other commenters of the improbability of single points of failure in combination with three-phase faults resulting in cascading outages.³³ Our determination is also supported by the 2015 Report's assessment that the probability of an adverse system impact from a three-phase fault accompanied by a protection system failure is low

²⁸ Reliability Standard TPL–001–5, Table 1 (Steady State and Stability Performance Planning Events). Category P5 requires the study of a single-line-to-ground faulted element (*e.g.*, generator, transmission circuit or transformer) along with a failure to operate of a non-redundant component of the protection system (*i.e.*, a single point of failure) protecting the faulted element.

²⁹ Order No. 693, 118 FERC ¶ 61,218 at P 1826 (describing extreme events as “events resulting in loss of two or more elements or cascading”).

³⁰ NERC Petition at 26, n.55.

³¹ Reliability Standard EOP–004–3 (Event Reporting), Attachment 1: Reportable Events, contains a list of thresholds for reporting certain events to NERC. Examples of reporting thresholds include: Loss of firm load for 15 minutes or more if 300 MW or greater for entities with a previous year's demand of at least 3,000 MW, or 200 MW or greater for all other entities.

³² NOPR, 167 FERC ¶ 61,249 at P 1.

³³ See, *e.g.*, NERC Petition 25–26, NERC Comments at 5, Trade Associations Comments at 5–6.

enough that it does not warrant being a planning event (*i.e.*, requiring a corrective action plan). Although the Commission previously noted that there is an average of approximately one three-phase fault event every three (3) months since 2011, only ten indicated instances of a protection system single point of failure, which we agree is a rare occurrence. Given the NERC standard drafting team's assessment of the improbability of single points of failure in combination with three-phase faults resulting in cascading outages, we determine that it is reasonable to address such occurrences as extreme events only requiring analysis and evaluation of possible mitigating actions designed to reduce adverse impacts.

24. Further, we do not adopt BPA's recommendation, as an alternative to the NOPR directive, for NERC to conduct a two-year pilot to determine whether the types of actions that could reduce or mitigate the impacts of single point of failure events are a cost-effective means of ensuring reliability.³⁴ As discussed above, we conclude that the record reflects the infrequent nature of single points of failure in combination with three-phase faults resulting in cascading outages and therefore justifies our determination not to adopt the NOPR directive.

Other Issues Raised in NOPR Comments

25. MISO's comments include recommendations apart from the issues discussed above. First, MISO recommends revising Reliability Standard TPL-001-5 to address the need for planned outage flexibility in the planning horizon. MISO contends that since very few planned outages are scheduled in the planning horizon, the Reliability Standard omits consideration of planned (*i.e.*, known) outages in the planning assessment. MISO states that Reliability Standard TPL-001-5 does not define the term "known" outages. MISO believes that the industry stakeholders will primarily interpret the term "known" to require that only scheduled outages be included in transmission planning models. MISO maintains that because the eventual occurrence of a future planned outage is certain to occur, such planned outages should be considered "known" for purposes of applying Reliability Standards to the transmission planning process.

26. Second, MISO recommends adding instrument transformers (*i.e.*, current transformers and voltage transformers) to Reliability Standard TPL-001-5, Table 1, Footnote 13 to

define protection system non-redundancies. MISO observes that instrument transformers are components listed in the NERC definition of protection system and, according to NERC, represent valid single points of failure.

Commission Determination

27. The Commission agrees with MISO that "because the eventual occurrence of a future planned outage is certain to occur, such planned outages should be considered 'known' for purposes of applying Reliability Standards to the transmission planning process."³⁵ As MISO observes, the Commission stated in Order No. 786 that a "properly planned transmission system should ensure the known, planned removal of facilities (*i.e.*, generation, transmission or protection system facilities) for maintenance purposes without the loss of non-consequential load or detrimental impacts to system reliability such as cascading, voltage instability or uncontrolled islanding."³⁶ Moreover, the Commission indicated in Order No. 786 that known planned facility outages (*i.e.* generation, transmission or protection system facilities) should be addressed so long as their "planned start times and durations may be anticipated as occurring for some period of time during the planning time horizon."³⁷ Given these statements, we are not convinced that registered entities will interpret "known" in Reliability Standard TPL-001-5 to mean scheduled, as MISO contends. Accordingly, we decline to adopt MISO's recommendation to modify the Reliability Standard.

28. The Commission also declines to direct NERC to include instrument transformer (*i.e.*, current transformers and voltage transformers) failure as a single component failure in Reliability Standard TPL-001-5, Footnote 13. The standard drafting team explained in the Technical Rationale document for Reliability Standard TPL-001-5 that the "[System Protection and Control Subcommittee and System Modeling and Analysis Subcommittee] report described voltage or current sensing devices [*i.e.*, current transformers and voltage transformers] as having a lower level of risk of failure to trip due to robustness and likelihood to actually cause tripping upon failure. Therefore, these components of a Protection System are omitted from Footnote

13."³⁸ While it contends that "ignoring instrument transformers . . . is contrary to good utility practice," MISO acknowledges that "instrument transformers are generally more robust than the other components of a protection system."³⁹ Based on this record, the Commission declines to adopt MISO's recommendation.

III. Information Collection Statement

29. The Paperwork Reduction Act (PRA)⁴⁰ requires each federal agency to seek and obtain the Office of Management and Budget's (OMB) approval before undertaking a collection of information (including reporting, record keeping, and public disclosure requirements) directed to ten or more persons or contained in a rule of general applicability. OMB regulations require approval of certain information collection requirements imposed by rules (including deletion, revision, or implementation of new requirements).⁴¹ Upon approval of a collection of information, OMB will assign an OMB control number and expiration date. Respondents subject to the filing requirements of this rule will not be penalized for failing to respond to the collection of information unless the collection of information displays a valid OMB Control Number.

30. The Commission is submitting these reporting and recordkeeping requirements to OMB for its review and approval under section 3507(d) of the PRA. The Commission solicits comments on the Commission's need for this information, whether the information will have practical utility, the accuracy of the burden estimates, ways to enhance the quality, utility, and clarity of the information to be collected or retained, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques.

31. *Burden Estimate:*⁴² The estimated burden⁴³ and cost⁴⁴ for the

³⁸ NERC Petition, Exhibit F (Technical Rationale) at 5.

³⁹ MISO Comments at 12.

⁴⁰ 44 U.S.C. 3501-21.

⁴¹ 5 CFR 1320.

⁴² "Burden" is the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, refer to 5 CFR 1320.3.

⁴³ The estimated burden is a one-time burden estimate in addition to the already approved burden estimate in Reliability Standard TPL-001-4.

⁴⁴ Hourly costs are based on the Bureau of Labor Statistics (BLS) figures for May 2018 (Sector 22, Utilities) for wages (https://www.bls.gov/oes/current/naics2_22.htm) and benefits (<https://www.bls.gov/news.release/ecec.nr0.htm>). We

Continued

³⁴ BPA Comments at 2-3.

³⁵ MISO Comments at 5.

³⁶ Order No. 786, 45 FERC ¶ 61,051 at P 41.

³⁷ *Id.* P 44.

requirements contained in this final rule follows:

FERC-725N, MODIFICATIONS DUE TO FINAL RULE IN DOCKET NO. RM19-10-000

Areas of modification	Number of respondents ⁴⁵	Annual number of responses per respondent	Total number of responses	Average burden & cost per response	Total annual burden hours & total annual cost
	(1)	(2)	(1) * (2) = (3)	(4)	(3) * (4) = (5)
Single Point of Failure (one-time).	214 (PC/TP) ...	1	214	16 hrs. (reporting: 12 hrs.; recordkeeping: 4 hrs.); \$880.	3,424 hrs. & \$188,320. (reporting, 2,568 hrs. & \$141,240, & recordkeeping, 856 hrs., & \$47,080).
Spare Equipment Strategy (one-time).	214 (PC/TP) ...	1	214	4 hrs. (reporting: 2 hrs.; recordkeeping: 2 hrs.); \$220.	856 hrs. & \$47,080 (reporting, 428 hrs. & \$23,540; recordkeeping, 428 hrs. & \$23,540).
Plan Maintenance Outage (one-time).	214 (PC/TP) ...	1	214	16 hrs. (reporting: 12 hrs.; recordkeeping: 4 hrs.) \$880.	3,424 hrs. & \$188,320 (reporting, 2,568 hrs. & \$141,240; recordkeeping, 856 hrs. & \$47,080).
Sub-Total for Reporting Requirements.	.....	.....	.....	.....	5,564 hrs.; \$306,020
Sub-Total for Recordkeeping Requirements.	.....	.....	.....	.....	2,140 hrs.; \$117,700
Total .....	.....	.....	642	.....	7,704 hrs.; \$423,720

32. This final rule will not significantly change existing burdens on an ongoing basis. The Commission estimates a one-time burden increase for Year 1 only because Year 1 represents a one-time task not repeated in subsequent years.

33. *Title:* FERC-725N, Mandatory Reliability Standards: Transmission Planning (TPL) Reliability Standards.

Action: Revision to FERC-725N information collection.

OMB Control No.: 1902-0264.

Respondents: Businesses or other for-profit institutions; not-for-profit institutions.

Frequency of Responses: One Time.

Necessity of the Information: This final rule approves the requested modifications to a Reliability Standard pertaining to transmission planning. As discussed above, the Commission approves Reliability Standard TPL-001-5 pursuant to FPA section 215(d)(2) because it improves upon the currently-effective Reliability Standard TPL-001-4.

Internal Review: The Commission has reviewed Reliability Standard TPL-001-

5 and determined that its action is necessary to implement section 215 of the FPA. The Commission has assured itself, by means of its internal review, that there is specific, objective support for the burden estimates associated with the information requirements.

34. Interested persons may obtain information on the reporting requirements by contacting the following: Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, [Attention: Ellen Brown, Office of the Executive Director, email: DataClearance@ferc.gov, phone: (202) 502-8663, fax: (202) 273-0873].

Submit comments concerning the collection of information and the associated burden estimate to the Commission in this docket, and to the Office of Management and Budget, Office of Information and Regulatory Affairs, 725 17th Street NW, Washington, DC 20503, [Attention: Desk Officer for the Federal Energy Regulatory Commission]. For security reasons, comments to OMB should be submitted by email to: [\[submission@omb.eop.gov\]\(mailto:submission@omb.eop.gov\). Comments submitted to OMB should include FERC-725N and OMB Control No. 1902-0264.](mailto:oira_</p>
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IV. Environmental Analysis

35. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.⁴⁶ The Commission has categorically excluded certain actions from this requirement as not having a significant effect on the human environment. Included in the exclusion are rules that are clarifying, corrective, or procedural or that do not substantially change the effect of the regulations being amended.⁴⁷ The actions proposed herein fall within this categorical exclusion in the Commission's regulations.

V. Regulatory Flexibility Act Analysis

36. The Regulatory Flexibility Act of 1980 (RFA)⁴⁸ generally requires a description and analysis of rulemakings that will have significant economic

estimate that Office and Administrative Support (Occupation code: 43-0000) would perform the functions associated with recordkeeping requirements, at an average hourly cost (for wages and benefits) of \$42.11. We estimate the functions associated with reporting requirements would be performed by an Electrical Engineer (Occupation code: 17-2051) at an average hourly cost (including wages and benefits) of \$68.17. These occupational

categories' wage figures are averaged and weighted equally as follows: (\$42.11 hour + \$68.17 hour) ÷ 2 = \$55.14/hour. The resulting wage figure is rounded to \$55.00/hour for use in calculating wage figures in the final rule in Docket No. RM19-10-000.

⁴⁵ The number of respondents is based on the NERC Registry on November 21, 2019, which showed 8 entities registered as planning

coordinators (PCs), 139 entities registered as transmission planners (TPs), and 67 entities registered as both PCs and TPs.

⁴⁶ *Regulations Implementing the National Environmental Policy Act of 1969*, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987) (cross-referenced at 41 FERC ¶ 61,284).

⁴⁷ 18 CFR 380.4(a)(2)(ii).

impact on a substantial number of small entities.⁴⁹ The Small Business Administration's (SBA) Office of Size Standards develops the numerical definition of a small business.⁵⁰ The SBA revised its size standard for electric utilities (effective January 22, 2014) to a standard based on the number of employees, including affiliates (from the prior standard based on megawatt hour sales).⁵¹

37. Reliability Standard TPL-001-5 is expected to impose an additional burden on 214 entities⁵² (PCs and TPs). Of the 214 affected entities discussed above, we estimate that approximately 10 percent of the affected entities are small entities. We estimate that each of the 21 small entities to whom the proposed modifications to proposed Reliability Standard TPL-001-5 apply will incur one-time costs of approximately \$1,980 per entity to implement the proposed Reliability Standard. We do not consider the estimated costs for these 21 small entities to be a significant economic impact.

38. Accordingly, the Commission certifies that this final rule will not have

a significant economic impact on a substantial number of small entities.

VI. Document Availability

39. In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through FERC's Home Page (<http://www.ferc.gov>) and in FERC's Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street NE, Room 2A, Washington, DC 20426.

40. From FERC's Home Page on the internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

41. User assistance is available for eLibrary and the FERC's website during normal business hours from FERC Online Support at (202) 502-6652 (toll

free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. Email the Public Reference Room at public.referenceroom@ferc.gov.

VII. Effective Date and Congressional Notification

42. These regulations are effective April 13, 2020. The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of OMB, that this rule is not a "major rule" as defined in section 351 of the Small Business Regulatory Enforcement Fairness Act of 1996. The rule will be provided to the Senate, House, Government Accountability Office, and the SBA.

By the Commission.

Issued: January 23, 2020.

Kimberly D. Bose,
Secretary.

Note: The following appendix will not appear in the Code of Federal Regulations.

Appendix—List of Commenters

Abbreviation	Commenter
AF&PA	American Forest and Paper Association.
APS	Arizona Public Service Company.
BPA	Bonneville Power Administration.
Carder	William Carder.
MISO	Midcontinent Independent System Operator, Inc.
NERC	North American Electric Reliability Corporation.
Pugh	Theresa Pugh.
Trade Associations	American Public Power Association, Edison Electric Institute, Large Public Power Council, National Rural Electric Cooperative Association.
Tri-State	Tri-State Generation and Transmission Association, Inc.
TVA	Tennessee Valley Authority.

[FR Doc. 2020-02170 Filed 2-12-20; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Part 40

[Docket No. RM18-20-000; ORDER NO. 866]

Critical Infrastructure Protection Reliability Standard CIP-012-1—Cyber Security—Communications Between Control Centers

AGENCY: Federal Energy Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Federal Energy Regulatory Commission (Commission) approves Reliability Standard CIP-012-1 (Cyber Security—Communications between Control Centers). The North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization, submitted Reliability Standard CIP-012-1 for Commission approval in response to a Commission directive. In addition, the Commission directs NERC to develop modifications to the CIP Reliability Standards to require protections regarding the availability of communication links and

data communicated between bulk electric system Control Centers.

DATES: This rule will become effective April 13, 2020.

FOR FURTHER INFORMATION CONTACT: Vincent Le, (Technical Information), Office of Electric Reliability, Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, (202) 502-6204, vincent.le@ferc.gov

Kevin Ryan, (Legal Information), Office of the General Counsel, Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, (202) 502-6840, kevin.ryan@ferc.gov

SUPPLEMENTARY INFORMATION:

subsidiaries. We are using a 500-employee threshold due to each affected entity falling within the role of Electric Bulk Power Transmission and Control (NAISC Code: 221121).

⁴⁸ 5 U.S.C. 601-612.

⁴⁹ *Id.*

⁵⁰ 13 CFR 121.101.

⁵¹ *Id.* 121.201.

⁵² Public utilities may fall under one of several different categories, each with a size threshold based on the company's number of employees, including affiliates, the parent company, and