

151 FERC ¶ 61,042  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 40

[Docket No. RM15-4-000]

Disturbance Monitoring and Reporting Requirements Reliability Standard

(April 16, 2015)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Federal Energy Regulatory Commission proposes to approve Reliability Standard PRC-002-2 (Disturbance Monitoring and Reporting Requirements) submitted by the North American Electric Reliability Corporation. The purpose of proposed Reliability Standard PRC-002-2 is to have adequate data available to facilitate analysis of bulk electric system disturbances.

DATES: Comments are due **[INSERT DATE 60 days after publication in the FEDERAL REGISTER]**.

ADDRESSES: Comments, identified by docket number, may be filed in the following ways:

- Electronic Filing through <http://www.ferc.gov>. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format.

- Mail/Hand Delivery: Those unable to file electronically may mail or hand-deliver comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, N.E., Washington, DC 20426.

*Instructions:* For detailed instructions on submitting comments and additional information on the rulemaking process, see the Comment Procedures Section of this document.

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:**

151 FERC ¶ 61,042  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Disturbance Monitoring and Reporting Requirements  
Reliability Standard

Docket No. RM15-4-000

NOTICE OF PROPOSED RULEMAKING

(April 16, 2015)

1. Pursuant to section 215 of the Federal Power Act (FPA), the Federal Energy Regulatory Commission (Commission) proposes to approve proposed Reliability Standard PRC-002-2 (Disturbance Monitoring and Reporting Requirements).<sup>1</sup> The North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO), submitted proposed Reliability Standard PRC-002-2 for approval. The purpose of proposed Reliability Standard PRC-002-2 is to have adequate data available to facilitate analysis of bulk electric system disturbances. In addition, the Commission proposes to approve the associated violation risk factors and violation severity levels, implementation plan, and effective date proposed by NERC.

**I. Background**

**A. Section 215 and Mandatory Reliability Standards**

2. Section 215 of the FPA requires a Commission-certified ERO to develop mandatory and enforceable Reliability Standards, subject to Commission review and

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<sup>1</sup> 16 U.S.C. 824o.

approval.<sup>2</sup> Once approved, the Reliability Standards may be enforced by the ERO subject to Commission oversight, or by the Commission independently.<sup>3</sup> In 2006, the Commission certified NERC as the ERO pursuant to FPA section 215.<sup>4</sup>

**B. Order No. 693**

3. On March 16, 2007, the Commission issued Order No. 693, approving 83 of the 107 Reliability Standards filed by NERC, including Reliability Standard PRC-018-1.<sup>5</sup> Reliability Standard PRC-018-1 requires the installation of disturbance monitoring equipment and the reporting of disturbance data in accordance with comprehensive requirements.<sup>6</sup>

4. In Order No. 693, the Commission determined that proposed Reliability Standard PRC-002-1 was a “fill-in-the-blank” Reliability Standard because it required Regional Reliability Organizations to establish requirements for installation of disturbance monitoring equipment and report disturbance data to facilitate analyses of events and

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<sup>2</sup> *Id.* 824o(c) and (d).

<sup>3</sup> *Id.* 824o(e).

<sup>4</sup> *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062 (ERO Certification Order), *order on reh’g and compliance*, 117 FERC ¶ 61,126 (2006), *order on compliance*, 118 FERC ¶ 61,190, *order on reh’g*, 119 FERC ¶ 61,046 (2007), *rev. denied sub nom. Alcoa Inc. v. FERC*, 564 F.3d 1342 (D.C. Cir. 2009).

<sup>5</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. and Regs. ¶ 31,242, *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>6</sup> *Id.* at PP 1550-1551.

verify system models.<sup>7</sup> The Commission stated that it would not approve or remand proposed Reliability Standard PRC-002-1 until NERC submitted additional necessary information to the Commission.<sup>8</sup>

**C. NERC Petition and Proposed Reliability Standard PRC-002-2**

5. On December 15, 2014, NERC submitted a petition seeking Commission approval of proposed Reliability Standard PRC-002-2.<sup>9</sup> NERC contends that proposed Reliability Standard PRC-002-2 is just, reasonable, not unduly discriminatory or preferential, and in the public interest. NERC explains that the proposed Reliability Standard consolidates the requirements of unapproved Reliability Standard PRC-002-1 and currently-effective Reliability Standard PRC-018-1.<sup>10</sup>

6. NERC states that it is important to monitor and analyze disturbances to plan and operate the Bulk-Power System to avoid instability, separation and cascading failures.<sup>11</sup> NERC maintains that the proposed Reliability Standard improves reliability by providing

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<sup>7</sup> *Id.* at P 1451.

<sup>8</sup> *Id.* at P 1456.

<sup>9</sup> Proposed Reliability Standard PRC-002-2 is not attached to this Notice of Proposed Rulemaking. The proposed Reliability Standard is available on the Commission's eLibrary document retrieval system in Docket No. RM15-4-00 and is posted on NERC's website, *available at* [http:// www.nerc.com](http://www.nerc.com).

<sup>10</sup> NERC Petition at 15.

<sup>11</sup> *Id.* at 13. NERC defines a "Disturbance" as: "(1) an unplanned event that produces an abnormal system condition; (2) any perturbation to the electric system; [or] (3) the unexpected change in [area control error] that is caused by the sudden failure of generation or interruption of load." *Id.* (quoting Glossary of Terms Used in NERC Reliability Standards at 30).

personnel with necessary data to enable more effective post event analysis, which can also be used to verify system models.<sup>12</sup> Moreover, NERC explains that the proposed Reliability Standard “focuses on ensuring that the requisite data is captured and the Requirements constitute a results-based approach to capturing data.”<sup>13</sup>

7. NERC states that, in the United States, proposed Reliability Standard PRC-002-2 will apply to planning coordinators in the Eastern Interconnection, planning coordinators or the reliability coordinator in the Electric Reliability Council of Texas (ERCOT) Interconnection, and the reliability coordinator in the Western Interconnection, which are collectively referred to as “Responsible Entities.” The proposed Reliability Standard will also apply to transmission owners and generation owners.

8. NERC states that proposed Reliability Standard PRC-002-2 includes 12 Requirements. Requirement R1 requires transmission owners: (1) to identify bulk electric system buses, e.g., substations, for which sequence of event recording and fault record data is required; (2) to notify other owners of bulk electric system elements connected to those particular bulk electric system buses where sequence of event recording and fault record data will be necessary; and (3) to re-evaluate all bulk electric system buses every five years. Requirement R2 requires transmission owners and generation owners to collect sequence of event data. Requirement R3 and Requirement R4 require transmission owners and generation owners to collect fault recording data and

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<sup>12</sup> *Id.* at 15.

<sup>13</sup> *Id.* at 14-15.

parameters of that data. Requirement R5 through Requirement R9 lay out thresholds where dynamic disturbance recording data are required and provide more specifics on its collection. Requirement R10 requires transmission owners and generation owners to time synchronize the recordings. According to NERC, Requirement R10 provides the synchronization requirements in response to Recommendation No. 28 from the final report on the August 2003 blackout issued by the U.S.-Canada Power System Outage Task Force (Blackout Report).<sup>14</sup> Requirement R11 requires transmission owners and generation owners to provide sequence of event recording, fault recording and dynamic disturbance recording data upon request and establishes specific guidelines to ensure that data can be used in the analysis of events. Requirement R12 requires transmission owners and generation owners to restore the recording capability of the equipment used to record disturbances, if this capability is interrupted.

9. NERC proposes an implementation plan that includes an effective date for proposed Reliability Standard PRC-002-2 that is the first day of the first calendar quarter that is six months after the date that the Commission approves the standard. Concurrent with the effective date, the implementation plan calls for the retirement of currently-

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<sup>14</sup> NERC Petition at 35-36 (quoting *U.S.-Canada Power System Outage Task Force, Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations* at 162 (Apr. 2004), available at <http://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/BlackoutFinal-Web.pdf>).

effective Reliability Standard PRC-018-1 and “pending” Reliability Standard PRC-002-1.<sup>15</sup>

## II. Discussion

10. Pursuant to section 215(d)(2) of the FPA, the Commission proposes to approve proposed Reliability Standard PRC-002-2 as just, reasonable, not unduly discriminatory or preferential, and in the public interest. The Commission also proposes to approve the associated violation risk factors and violation severity levels, implementation plan, and effective date proposed by NERC. Further, the Commission proposes to approve the retirement of “pending” Reliability Standard PRC-002-1 and currently-effective Reliability Standard PRC-018-1, as proposed by NERC.<sup>16</sup>

11. Proposed Reliability Standard PRC-002-2 enhances reliability by imposing mandatory requirements concerning the monitoring and reporting of disturbances. Proposed Reliability Standard PRC-002-2 provides greater continent-wide consistency regarding collection methods for data used in the analysis of disturbances on the Bulk-Power System. Specifically, proposed Reliability Standard PRC-002-2 enhances reliability by consistently requiring covered entities to collect time-synchronized

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<sup>15</sup> *Id.* at Ex. B (Implementation Plan).

<sup>16</sup> As noted above, the Commission in Order No. 693 did not approve proposed Reliability Standard PRC-002-1 but, rather, took no action on the Reliability Standard pending the receipt of additional information. Order No. 693, FERC Stats. and Regs. ¶ 31,242 at P 1456. Approval of Reliability Standard PRC-002-2, as proposed herein, will render PRC-002-1 “retired,” i.e., withdrawn, and no longer pending before the Commission.



information and to report disturbances on the Bulk-Power System. Accordingly, proposed Reliability Standard PRC-002-2 satisfies the relevant directive in Order No. 693.<sup>17</sup> In addition, we agree with NERC that Reliability Standard PRC-018-1 can be retired due to its consolidation with proposed Reliability Standard PRC-002-2.

### **III. Information Collection Statement**

12. The collection of information addressed in this Notice of Proposed Rulemaking is subject to review by the Office of Management and Budget (OMB) under section 3507(d) of the Paperwork Reduction Act of 1995.<sup>18</sup> OMB's regulations require approval of certain information collection requirements imposed by agency rules.<sup>19</sup> Upon approval of a collection(s) of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of a rule will not be penalized for failing to respond to these collections of information unless the collections of information display a valid OMB control number.

13. We solicit comments on the 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

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<sup>17</sup> Order No. 693, FERC Stats. and Regs. ¶ 31,242 at P 1456 ("the ERO should consider whether greater consistency can be achieved" regarding disturbance monitoring and reporting).

<sup>18</sup> 44 U.S.C. 3507(d).

<sup>19</sup> 5 CFR 1320.11.

information techniques. Specifically, the Commission asks that any revised burden or cost estimates submitted by commenters be supported by sufficient detail to understand how the estimates are generated.

14. Public Reporting Burden: The number of respondents below is based on an examination of the NERC compliance registry for transmission owners and generation owners and the estimation of how many entities from that registry will be affected. At the time of Commission review of proposed Reliability Standard PRC-002-2, 330 transmission owners and 914 generation owners in the United States are registered in the NERC compliance registry. The Commission estimates that two-thirds (216) of these registered transmission owners will need to comply with at least one of the requirements contained in proposed Reliability Standard PRC-002-2. The Commission notes that many generation sites share a common generation owner. Due to the nature of this task, it is likely generator owners will manage this information aggregation task using a centralized staff. Therefore, we estimate that one-third of the generation owners (305) will have to meet the requirements contained in proposed Reliability Standard PRC-002-2. Finally, the Commission finds the number of “Responsible Entities”<sup>20</sup> in the

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<sup>20</sup> As discussed above, proposed Reliability Standard PRC-002-2 defines the term “Responsible Entity” to include planning coordinators in the Eastern Interconnection, the reliability coordinator in the Western Interconnection, and planning coordinators or the reliability coordinator in the ERCOT Interconnection.

United States to equal fifty, based on the NERC compliance registry. The following table illustrates the burden to be applied to the information collection.<sup>21</sup>

Requirement and Respondent Category for PRC-002-2	Number of Respondents (1)	Annual Number of Responses per Respondent (2)	Total Number of Responses (1)*(2)=(3)	Average Burden Hours & Cost per Response <sup>22</sup> (4)	Annual Burden Hours & Total Annual Cost (3)*(4)=(5)
R1. Each Transmission Owner	324	1	324	(Eng.) 24 hrs. (\$1,568.16); (R.K.) 12 hrs. (\$401.04)	11,664 hrs. (7776 Eng., 3888 R.K.); \$638,020.80 (\$508,083.84 Eng., \$129,936.96 R.K.)
R2. Each Transmission Owner and Generator Owner	521	1	521	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	7,294 hrs. (5210 Eng., 2084 R.K.); \$ 410,068.68 (\$340,421.40 Eng., \$69,647.28 R.K.)
R3 & R4. Each Transmission Owner and Generator Owner	521	1	521	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	7,294 hrs. (5210 Eng., 2084 R.K.); \$410,068.68 (\$340,421.40 Eng., \$69,647.28 R.K.)
R5. Each Responsible Entity	50	1	50	(Eng.) 24 hrs. (\$1,568.16); (R.K.) 12 hrs. (\$401.04)	1,800 hrs. (1200 Eng., 600 R.K.); \$ 98,460 (\$78,408 Eng., \$20,052 R.K.)
R6. Each Transmission Owner	216	1	216	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	3,024 hrs. (2160 Eng., 864 R.K.); \$170,009.28 (\$141,134.40 Eng., \$28,874.88 R.K.)
R7. Each Generator Owner	305	1	305	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	4,270 hrs. (3050 Eng., 1220 R.K.); \$240,059.40 (\$199,287Eng., \$40,772.40 R.K.)

<sup>21</sup> In the burden table, engineering is abbreviated as “Eng.” and record keeping is abbreviated as “R.K.”

<sup>22</sup> The estimates for cost per response are derived using the following formula: Burden Hours per Response \* \$/hour = Cost per Response. The \$65.34/hour figure for an engineer and the \$33.42/hour figure for a record clerk are based on the average salary plus benefits data from Bureau of Labor Statistics.

R8. Each Transmission Owner and Generator Owner	521	1	521	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	7,294 hrs. (5210 Eng., 2084 R.K.); \$410,068.68 (\$340,421.40 Eng., \$69,647.28 R.K.)
R9. Each Transmission Owner and Generator Owner	521	1	521	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	7,294 hrs. (5210 Eng., 2084 R.K.); \$410,068.68 (\$340,421.40 Eng., \$69,647.28 R.K.)
R10. Each Transmission Owner and Generator Owner	521	1	521	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	7,294 hrs. (5210 Eng., 2084 R.K.); \$410,068.68 (\$340,421.40 Eng., \$69,647.28 R.K.)
R11. Each Transmission Owner and Generator Owner	521	1	521	(Eng.) 8 hrs. (\$522.72); (R.K.) 4 hrs. (\$133.68)	6,252 hrs. (4168 Eng., 2084 R.K.); \$ 341,984.4 \$ (272,337.12 Eng., \$69,647.28 R.K.)
R12. Each Transmission Owner and Generator Owner <sup>23</sup>	52	1	52	(Eng.) 10 hrs. (\$653.40); (R.K.) 4 hrs. (\$133.68)	728 hrs. (520 Eng., 208 R.K.); \$40,928.16 (\$ 33,976.80 Eng., \$6,951.36 R.K.)
<b>Total</b>					<b>64,208 hrs. (44,924 Eng., 19,284 R.K.); \$ 3,579,805.44 (\$ 2,935,334.16 Eng., \$644,471.28 R.K.)</b>

Title: FERC-725G2<sup>24</sup> Disturbance Monitoring and Reporting Requirements

Action: Revision to existing collection.

OMB Control No: To be determined.

<sup>23</sup> The Commission estimates that 10% (or 52) of the 521 registered entities will have to restore recording capability or institute a corrective action plan (CAP) each year.

<sup>24</sup> FERC-725G2 is temporarily being used because FERC-725G (OMB Control No. 1902-0252) is currently pending review at OMB.

Respondents: Business or other for profit, and not for profit institutions.

Frequency of Responses: Annually.

Necessity of the Information: Proposed Reliability Standard PRC-002-2 sets forth requirements for disturbance monitoring and reporting requirements that will ensure adequate data are available to facilitate analysis of bulk electric system disturbances.

Internal review: 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.

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

16. Comments concerning the information collection proposed in this Notice of Proposed Rulemaking and the associated burden estimates, should be sent to the Commission in this docket and may also be sent to the Office of Management and Budget, Office of Information and Regulatory Affairs [Attention: Desk Officer for the Federal Energy Regulatory Commission]. For security reasons, comments should be sent by e-mail to OMB at the following e-mail address: oira\_submission@omb.eop.gov. Please reference FERC-725G2 and the docket numbers of this Notice of Proposed Rulemaking (Docket No. RM15-4-000) in your submission.

**IV. Environmental Analysis**

17. 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.<sup>25</sup> This action has been categorically excluded under section 380.4(a)(2)(ii) of the Commission's regulations, addressing the collection of information.<sup>26</sup>

**V. Regulatory Flexibility Act**

18. The Regulatory Flexibility Act of 1980 (RFA)<sup>27</sup> generally requires a description and analysis of proposed rules that will have significant economic impact on a substantial number of small entities.

19. The Small Business Administration (SBA) revised its size standards (effective January 22, 2014) for electric utilities from a standard based on megawatt hours to a standard based on the number of employees, including affiliates. Under SBA's new standards, some transmission owners and generation owners will possibly fall under the following category and associated size threshold: electric bulk power transmission and control at 500 employees; hydroelectric power generation at 500 employees; fossil fuel

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<sup>25</sup> *Regulations Implementing the National Environmental Policy Act of 1969*, Order No. 486, 52 FR 47897 (Dec. 17, 1987), FERC Stats. & Regs. Preambles 1986-1990 ¶ 30,783 (1987).

<sup>26</sup> 18 CFR 380.4(a)(2)(ii).

<sup>27</sup> 5 U.S.C. 601-612.

electric power generation at 750 employees; nuclear electric power generation at 750 employees.

20. The Commission estimates that the number of applicable small entities will be minimal due to the gross million volt amps (MVA) thresholds embedded into proposed Reliability Standard PRC-002-2, which focus information collection on bulk electric system facilities having Interconnection-wide impacts worthy of collecting. The proposed Reliability Standard applies to approximately 526 entities in the United States. The Commission estimates, applying the MVA thresholds above, that approximately 52 (or 10 percent of the 521) are small entities. The Commission estimates for these small entities, proposed Reliability Standard PRC-002-2 Requirement R1 may need to be evaluated and documented every five years with costs of \$9,847 for each evaluation. From this set of small entities, the Commission estimates that five percent, or only two or three small entities, may be affected by the other requirements, i.e., Requirements R2 through R12, of proposed Reliability Standard PRC-002-2. Based on a prior industry-sponsored survey, annual compliance costs will average \$100,000-\$160,000 for entities subject to these requirements.<sup>28</sup> Accordingly, the Commission certifies that the proposed Reliability Standard will not have a significant economic impact on a substantial number of small entities.

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<sup>28</sup> See NERC Petition Ex. G (Record of Development) at 257 of pdf file, providing link to: NERC Cost Effective Analysis Process (CEAP) Pilot for NERC Project 2007-11 – Disturbance Monitoring – PRC-002-2 at 8 (Apr. 9, 2014).

**VI. Comment Procedures**

21. The Commission invites interested persons to submit comments on the matters and issues proposed in this notice to be adopted, including any related matters or alternative proposals that commenters may wish to discuss. Comments are due **[INSERT DATE 60 days after publication in the FEDERAL REGISTER]**. Comments must refer to Docket No. RM15-4-000, and must include the commenter's name, the organization they represent, if applicable, and their address in their comments.
22. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at <http://www.ferc.gov>. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.
23. Commenters that are not able to file comments electronically must send an original of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.
24. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters on this proposal are not required to serve copies of their comments on other commenters.



**VII. Document Availability**

25. 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 the Commission's Home Page (<http://www.ferc.gov>) and in the Commission'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.

26. From the Commission'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 of this document, excluding the last three digits in the docket number field.

27. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at (202) 502-6652 (toll free at 1 (866) 208-3676) or e-mail at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or the Public Reference Room at (202) 502-8371, TTY (202)502-8659. E-mail the Public Reference Room at [public.referenceroom@ferc.gov](mailto:public.referenceroom@ferc.gov).

By direction of the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.