

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Registration Standards Applicability List for Coordinated Functional Registration (CFR)

JRO00001 (SERC)

January 26, 2012

RELIABILITY | ACCOUNTABILITY



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Registration Status as of 1/26/2012

JRO00001 SERC

Last Update 12/1/2011

Member Entities	Original CFR Effective Registration Date
NCR01175 - Ameren Services Company	1/6/2009
NCR01180 - Big Rivers Electric Corporation	12/1/2010
NCR01196 - City of Columbia, MO	1/6/2009
NCR01328 - City of Springfield, IL - CWLP	1/6/2009
NCR00826 - Midwest Independent Transmission System Operator, Inc.	1/6/2009

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-001-0.1a

Requirements:

- R1. Each Balancing Authority shall operate such that, on a rolling 12-month basis, the average of the clock-minute averages of the Balancing Authority's Area Control Error (ACE) divided by 10B (B is the clock-minute average of the Balancing Authority Area's F

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2. Each Balancing Authority shall operate such that its average ACE for at least 90% of clock-ten-minute periods (6 non-overlapping periods per hour) during a calendar month is within a specific limit, referred to as L10. ?10 is a constant derived from the t

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3. Each Balancing Authority providing Overlap Regulation Service shall evaluate Requirement R1 (i.e., Control Performance Standard 1 or CPS1) and Requirement R2 (i.e., Control Performance Standard 2 or CPS2) using the characteristics of the combined ACE and

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4. Any Balancing Authority receiving Overlap Regulation Service shall not have its control performance evaluated (i.e. from a control performance perspective, the Balancing Authority has shifted all control requirements to the Balancing Authority providing O

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-002-0

Requirements:

- R1.** Each Balancing Authority shall have access to and/or operate Contingency Reserve to respond to Disturbances. Contingency Reserve may be supplied from generation, controllable load resources, or coordinated adjustments to Interchange Schedules.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1.** A Balancing Authority may elect to fulfill its Contingency Reserve obligations by participating as a member of a Reserve Sharing Group. In such cases, the Reserve Sharing Group shall have the same responsibilities and obligations as each Balancing Author

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.** Each Balancing Authority or Reserve Sharing Group shall activate sufficient Contingency Reserve to comply with the DCS.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.1.** As a minimum, the Balancing Authority or Reserve Sharing Group shall carry at least enough Contingency Reserve to cover the most severe single contingency. All Balancing Authorities and Reserve Sharing Groups shall review, no less frequently than annual

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4.** A Balancing Authority or Reserve Sharing Group shall meet the Disturbance Recovery Criterion within the Disturbance Recovery Period for 100% of Reportable Disturbances. The Disturbance Recovery Criterion is:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4.1.** A Balancing Authority shall return its ACE to zero if its ACE just prior to the Reportable Disturbance was positive or equal to zero. For negative initial ACE values just prior to the Disturbance, the Balancing Authority shall return ACE to its pre-Distu

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4.2.** The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance. This period may be adjusted to better suit the needs of an Interconnection based on analysis approved by the NERC Operating Committee.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-002-0

Requirements:

- R5.** Each Reserve Sharing Group shall comply with the DCS. A Reserve Sharing Group shall be considered in a Reportable Disturbance condition whenever a group member has experienced a Reportable Disturbance and calls for the activation of Contingency Reserves

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5.1.** The Reserve Sharing Group reviews group ACE (or equivalent) and demonstrates compliance to the DCS. To be in compliance, the group ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharin

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5.2.** The Reserve Sharing Group reviews each member's ACE in response to the activation of reserves. To be in compliance, a member's ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing ha

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6.** A Balancing Authority or Reserve Sharing Group shall fully restore its Contingency Reserves within the Contingency Reserve Restoration Period for its Interconnection.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6.1.** The Contingency Reserve Restoration Period begins at the end of the Disturbance Recovery Period.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6.2.** The default Contingency Reserve Restoration Period is 90 minutes. This period may be adjusted to better suit the reliability targets of the Interconnection based on analysis approved by the NERC Operating Committee.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-003-0.1b

Requirements:

- R1. Each Balancing Authority shall review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in the Frequency Response of the Balancing Authority Area.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1. The Balancing Authority may change its Frequency Bias Setting, and the method used to determine the setting, whenever any of the factors used to determine the current bias value change.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.2. Each Balancing Authority shall report its Frequency Bias Setting, and method for determining that setting, to the NERC Operating Committee.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2. Each Balancing Authority shall establish and maintain a Frequency Bias Setting that is as close as practical to, or greater than, the Balancing Authority's Frequency Response. Frequency Bias may be calculated several ways:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2.1. The Balancing Authority may use a fixed Frequency Bias value which is based on a fixed, straight-line function of Tie Line deviation versus Frequency Deviation. The Balancing Authority shall determine the fixed value by observing and averaging the Freque

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2.2. The Balancing Authority may use a variable (linear or non-linear) bias value, which is based on a variable function of Tie Line deviation to Frequency Deviation. The Balancing Authority shall determine the variable frequency bias value by analyzing Freque

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3. Each Balancing Authority shall operate its Automatic Generation Control (AGC) on Tie Line Frequency Bias, unless such operation is adverse to system or Interconnection reliability.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4. Balancing Authorities that use Dynamic Scheduling or Pseudo-ties for jointly owned units shall reflect their respective share of the unit governor droop response in their respective Frequency Bias Setting.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-003-0.1b

Requirements:

- R4.1. Fixed schedules for Jointly Owned Units mandate that Balancing Authority (A) that contains the Jointly Owned Unit must incorporate the respective share of the unit governor droop response for any Balancing Authorities that have fixed schedules (B and C).

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4.2. The Balancing Authorities that have a fixed schedule (B and C) but do not contain the Jointly Owned Unit shall not include their share of the governor droop response in their Frequency Bias Setting.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5. Balancing Authorities that serve native load shall have a monthly average Frequency Bias Setting that is at least 1% of the Balancing Authority's estimated yearly peak demand per 0.1 Hz change.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5.1. Balancing Authorities that do not serve native load shall have a monthly average Frequency Bias Setting that is at least 1% of its estimated maximum generation level in the coming year per 0.1 Hz change.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6. A Balancing Authority that is performing Overlap Regulation Service shall increase its Frequency Bias Setting to match the frequency response of the entire area being controlled. A Balancing Authority shall not change its Frequency Bias Setting when perf

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-004-0

Requirements:

- R3.** Each Balancing Authority, when requested, shall participate in a Time Error Correction by one of the following methods:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.1.** The Balancing Authority shall offset its frequency schedule by 0.02 Hertz, leaving the Frequency Bias Setting normal; or

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.2.** The Balancing Authority shall offset its Net Interchange Schedule (MW) by an amount equal to the computed bias contribution during a 0.02 Hertz Frequency Deviation (i.e. 20% of the Frequency Bias Setting).

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4.1.** Balancing Authorities that have reliability concerns with the execution of a Time Error Correction shall notify their Reliability Coordinator and request the termination of a Time Error Correction in progress.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-005-0.1b

Requirements:

- R10.** The Balancing Authority shall include all Dynamic Schedules in the calculation of Net Scheduled Interchange for the ACE equation.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R11.** Balancing Authorities shall include the effect of ramp rates, which shall be identical and agreed to between affected Balancing Authorities, in the Scheduled Interchange values to calculate ACE.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R12.** Each Balancing Authority shall include all Tie Line flows with Adjacent Balancing Authority Areas in the ACE calculation.

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR00826 Midwest Independent Transmission System Operator, Inc.

NCR01321 Southern Illinois Power Cooperative

- R12.1.** Balancing Authorities that share a tie shall ensure Tie Line MW metering is telemetered to both control centers, and emanates from a common, agreed-upon source using common primary metering equipment. Balancing Authorities shall ensure that megawatt-hour

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR01321 Southern Illinois Power Cooperative

- R12.2.** Balancing Authorities shall ensure the power flow and ACE signals that are utilized for calculating Balancing Authority performance or that are transmitted for Regulation Service are not filtered prior to transmission, except for the Anti-aliasing Filters

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R12.3.** Balancing Authorities shall install common metering equipment where Dynamic Schedules or Pseudo-Ties are implemented between two or more Balancing Authorities to deliver the output of Jointly Owned Units or to serve remote load.

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-005-0.1b

Requirements:

- R13.** Each Balancing Authority shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. The Balancing Authority shall adjust the component (e.g., Tie Line meter)

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R14.** The Balancing Authority shall provide its operating personnel with sufficient instrumentation and data recording equipment to facilitate monitoring of control performance, generation response, and after-the-fact analysis of area performance. As a minimum

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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- R15.** The Balancing Authority shall provide adequate and reliable backup power supplies and shall periodically test these supplies at the Balancing Authority's control center and other critical locations to ensure continuous operation of AGC and vital data reco

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R16.** The Balancing Authority shall sample data at least at the same periodicity with which ACE is calculated. The Balancing Authority shall flag missing or bad data for operator display and archival purposes. The Balancing Authority shall collect coincident

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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- R17.** Each Balancing Authority shall at least annually check and calibrate its time error and frequency devices against a common reference. The Balancing Authority shall adhere to the minimum values for measuring devices as listed below: See Standard for Value

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-005-0.1b

Requirements:

- R2. Each Balancing Authority shall maintain Regulating Reserve that can be controlled by AGC to meet the Control Performance Standard.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3. A Balancing Authority providing Regulation Service shall ensure that adequate metering, communications, and control equipment are employed to prevent such service from becoming a Burden on the Interconnection or other Balancing Authority Areas.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4. A Balancing Authority providing Regulation Service shall notify the Host Balancing Authority for whom it is controlling if it is unable to provide the service, as well as any Intermediate Balancing Authorities.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5. A Balancing Authority receiving Regulation Service shall ensure that backup plans are in place to provide replacement Regulation Service should the supplying Balancing Authority no longer be able to provide this service.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6. The Balancing Authority's AGC shall compare total Net Actual Interchange to total Net Scheduled Interchange plus Frequency Bias obligation to determine the Balancing Authority's ACE. Single Balancing Authorities operating asynchronously may employ altern

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R7. The Balancing Authority shall operate AGC continuously unless such operation adversely impacts the reliability of the Interconnection. If AGC has become inoperative, the Balancing Authority shall use manual control to adjust generation to maintain the Ne

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R8. The Balancing Authority shall ensure that data acquisition for and calculation of ACE occur at least every six seconds.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R8.1. Each Balancing Authority shall provide redundant and independent frequency metering equipment that shall automatically activate upon detection of failure of the primary source. This overall installation shall provide a minimum availability of 99.95%.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: **BAL-005-0.1b**

Requirements:

- R9.** The Balancing Authority shall include all Interchange Schedules with Adjacent Balancing Authorities in the calculation of Net Scheduled Interchange for the ACE equation.

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

- R9.1.** Balancing Authorities with a high voltage direct current (HVDC) link to another Balancing Authority connected asynchronously to their Interconnection may choose to omit the Interchange Schedule related to the HVDC link from the ACE equation if it is model

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-006-2

Requirements:

R1. Each Balancing Authority shall calculate and record hourly Inadvertent Interchange.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R2. Each Balancing Authority shall include all AC tie lines that connect to its Adjacent Balancing Authority Areas in its Inadvertent Interchange account. The Balancing Authority shall take into account interchange served by jointly owned generators.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R3. Each Balancing Authority shall ensure all of its Balancing Authority Area interconnection points are equipped with common megawatt-hour meters, with readings provided hourly to the control centers of Adjacent Balancing Authorities.

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR01321 Southern Illinois Power Cooperative

R4. Adjacent Balancing Authority Areas shall operate to a common Net Interchange Schedule and Actual Net Interchange value and shall record these hourly quantities, with like values but opposite sign. Each Balancing Authority shall compute its Inadvertent In

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R4.1. Each Balancing Authority, by the end of the next business day, shall agree with its Adjacent Balancing Authorities to:

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR00826 Midwest Independent Transmission System Operator, Inc.

NCR01321 Southern Illinois Power Cooperative

R4.1.1. The hourly values of Net Interchange Schedule.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: BAL-006-2

Requirements:

R4.1.2. The hourly integrated megawatt-hour values of Net Actual Interchange.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR01321 Southern Illinois Power Cooperative

R4.2. Each Balancing Authority shall use the agreed-to daily and monthly accounting data to compile its monthly accumulated Inadvertent Interchange for the On-Peak and Off-Peak hours of the month.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R4.3. A Balancing Authority shall make after-the-fact corrections to the agreed-to daily and monthly accounting data only as needed to reflect actual operating conditions (e.g. a meter being used for control was sending bad data). Changes or corrections based

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

R5. Adjacent Balancing Authorities that cannot mutually agree upon their respective Net Actual Interchange or Net Scheduled Interchange quantities by the 15th calendar day of the following month shall, for the purposes of dispute resolution, submit a report t

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-001-2a

Requirements:

- R1. Each Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, and Load-Serving Entity shall have procedures for the recognition of and for making their operating personnel aware of sabotage events on its facilities and mult

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R2. Each Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, and Load-Serving Entity shall have procedures for the communication of information concerning sabotage events to appropriate parties in the Interconnection.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R3. Each Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, and Load-Serving Entity shall provide its operating personnel with sabotage response guidelines, including personnel to contact, for reporting disturbances due t

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4. Each Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, and Load-Serving Entity shall establish communications contacts, as applicable, with local Federal Bureau of Investigation (FBI) or Royal Canadian Mounted Police

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-002-3

Requirements:

- R1.** Critical Asset Identification Method — The Responsible Entity shall identify and document a risk-based assessment methodology to use to identify its Critical Assets.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1.** The Responsible Entity shall maintain documentation describing its risk-based assessment methodology that includes procedures and evaluation criteria.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** The risk-based assessment shall consider the following assets:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.1.** Control centers and backup control centers performing the functions of the entities listed in the Applicability section of this standard.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-002-3

Requirements:

R1.2.2. Transmission substations that support the reliable operation of the Bulk Electric System.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.2.3. Generation resources that support the reliable operation of the Bulk Electric System.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.2.4. Systems and facilities critical to system restoration, including blackstart generators and substations in the electrical path of transmission lines used for initial system restoration.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.2.5. Systems and facilities critical to automatic load shedding under a common control system capable of shedding 300 MW or more.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-002-3

Requirements:

R1.2.6. Special Protection Systems that support the reliable operation of the Bulk Electric System.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.2.7. Any additional assets that support the reliable operation of the Bulk Electric System that the Responsible Entity deems appropriate to include in its assessment.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2. Critical Asset Identification — The Responsible Entity shall develop a list of its identified Critical Assets determined through an annual application of the risk-based assessment methodology required in R1. The Responsible Entity shall review this list

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R3. Critical Cyber Asset Identification — Using the list of Critical Assets developed pursuant to Requirement R2, the Responsible Entity shall develop a list of associated Critical Cyber Assets essential to the operation of the Critical Asset. Examples at co

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-002-3

Requirements:

R3.1. The Cyber Asset uses a routable protocol to communicate outside the Electronic Security Perimeter; or,

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R3.2. The Cyber Asset uses a routable protocol within a control center; or,

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R3.3. The Cyber Asset is dial-up accessible.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R4. Annual Approval — The senior manager or delegate(s) shall approve annually the risk-based assessment methodology, the list of Critical Assets and the list of Critical Cyber Assets. Based on Requirements R1, R2, and R3 the Responsible Entity may determine

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-003-3

Requirements:

- R1.** Cyber Security Policy — The Responsible Entity shall document and implement a cyber security policy that represents management’s commitment and ability to secure its Critical Cyber Assets. The Responsible Entity shall, at minimum, ensure the following:

Responsible Members:

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NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1.** The cyber security policy addresses the requirements in Standards CIP-002-3 through CIP-009-3, including provision for emergency situations.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** The cyber security policy is readily available to all personnel who have access to, or are responsible for, Critical Cyber Assets.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.3.** Annual review and approval of the cyber security policy by the senior manager assigned pursuant to R2.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-003-3

Requirements:

- R2.** Leadership — The Responsible Entity shall assign a single senior manager with overall responsibility and authority for leading and managing the entity's implementation of, and adherence to, Standards CIP-002-3 through CIP-009-3.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.1.** The senior manager shall be identified by name, title, and date of designation.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.2.** Changes to the senior manager must be documented within thirty calendar days of the effective date.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.3.** Where allowed by Standards CIP-002-3 through CIP-009-3, the senior manager may delegate authority for specific actions to a named delegate or delegates. These delegations shall be documented in the same manner as R2.1 and R2.2, and approved by the senior

Responsible Members:

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NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-003-3

Requirements:

- R2.4.** The senior manager or delegate(s), shall authorize and document any exception from the requirements of the cyber security policy.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.** Exceptions — Instances where the Responsible Entity cannot conform to its cyber security policy must be documented as exceptions and authorized by the senior manager or delegate(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.1.** Exceptions to the Responsible Entity's cyber security policy must be documented within thirty days of being approved by the senior manager or delegate(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.2.** Documented exceptions to the cyber security policy must include an explanation as to why the exception is necessary and any compensating measures.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-003-3

Requirements:

- R3.3.** Authorized exceptions to the cyber security policy must be reviewed and approved annually by the senior manager or delegate(s) to ensure the exceptions are still required and valid. Such review and approval shall be documented.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4.** Information Protection — The Responsible Entity shall implement and document a program to identify, classify, and protect information associated with Critical Cyber Assets.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4.1.** The Critical Cyber Asset information to be protected shall include, at a minimum and regardless of media type, operational procedures, lists as required in Standard CIP-002-3, network topology or similar diagrams, floor plans of computing centers that con

Responsible Members:

NCR01175 Ameren Services Company
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NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4.2.** The Responsible Entity shall classify information to be protected under this program based on the sensitivity of the Critical Cyber Asset information.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-003-3

Requirements:

- R4.3.** The Responsible Entity shall, at least annually, assess adherence to its Critical Cyber Asset information protection program, document the assessment results, and implement an action plan to remediate deficiencies identified during the assessment.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

- R5.** Access Control — The Responsible Entity shall document and implement a program for managing access to protected Critical Cyber Asset information.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

- R5.1.** The Responsible Entity shall maintain a list of designated personnel who are responsible for authorizing logical or physical access to protected information.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R5.1.1.** Personnel shall be identified by name, title, and the information for which they are responsible for authorizing access.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-003-3

Requirements:

R5.1.2. The list of personnel responsible for authorizing access to protected information shall be verified at least annually.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
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R5.2. The Responsible Entity shall review at least annually the access privileges to protected information to confirm that access privileges are correct and that they correspond with the Responsible Entity's needs and appropriate personnel roles and responsibilities.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
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NCR01321	Southern Illinois Power Cooperative

R5.3. The Responsible Entity shall assess and document at least annually the processes for controlling access privileges to protected information.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
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NCR01321	Southern Illinois Power Cooperative

R6. Change Control and Configuration Management — The Responsible Entity shall establish and document a process of change control and configuration management for adding, modifying, replacing, or removing Critical Cyber Asset hardware or software, and implement it.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-004-3

Requirements:

- R1. Awareness — The Responsible Entity shall establish, document, implement, and maintain a security awareness program to ensure personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets receive on-going reinforcement

Responsible Members:

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- R2. Training — The Responsible Entity shall establish, document, implement, and maintain an annual cyber security training program for personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets. The cyber security trai

Responsible Members:

NCR01175	Ameren Services Company
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- R2.1. This program will ensure that all personnel having such access to Critical Cyber Assets, including contractors and service vendors, are trained prior to their being granted such access except in specified circumstances such as an emergency.

Responsible Members:

NCR01175	Ameren Services Company
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NCR01321	Southern Illinois Power Cooperative

- R2.2. Training shall cover the policies, access controls, and procedures as developed for the Critical Cyber Assets covered by CIP-004-3, and include, at a minimum, the following required items appropriate to personnel roles and responsibilities:

Responsible Members:

NCR01175	Ameren Services Company
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NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-004-3

Requirements:

R2.2.1. The proper use of Critical Cyber Assets;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

R2.2.2. Physical and electronic access controls to Critical Cyber Assets;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

R2.2.3. The proper handling of Critical Cyber Asset information; and,

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2.2.4. Action plans and procedures to recover or re-establish Critical Cyber Assets and access thereto following a Cyber Security Incident.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-004-3

Requirements:

- R2.3.** The Responsible Entity shall maintain documentation that training is conducted at least annually, including the date the training was completed and attendance records.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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- R3.** Personnel Risk Assessment —The Responsible Entity shall have a documented personnel risk assessment program, in accordance with federal, state, provincial, and local laws, and subject to existing collective bargaining unit agreements, for personnel havin

Responsible Members:

NCR01175	Ameren Services Company
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NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

- R3.1.** The Responsible Entity shall ensure that each assessment conducted include, at least, identity verification (e.g., Social Security Number verification in the U.S.) and seven-year criminal check. The Responsible Entity may conduct more detailed reviews, as

Responsible Members:

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NCR01321	Southern Illinois Power Cooperative

- R3.2.** The Responsible Entity shall update each personnel risk assessment at least every seven years after the initial personnel risk assessment or for cause.

Responsible Members:

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NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-004-3

Requirements:

- R3.3.** The Responsible Entity shall document the results of personnel risk assessments of its personnel having authorized cyber or authorized unescorted physical access to Critical Cyber Assets, and that personnel risk assessments of contractor and service vendor

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
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NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

- R4.** Access — The Responsible Entity shall maintain list(s) of personnel with authorized cyber or authorized unescorted physical access to Critical Cyber Assets, including their specific electronic and physical access rights to Critical Cyber Assets.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.1.** The Responsible Entity shall review the list(s) of its personnel who have such access to Critical Cyber Assets quarterly, and update the list(s) within seven calendar days of any change of personnel with such access to Critical Cyber Assets, or any change

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
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NCR01321	Southern Illinois Power Cooperative

- R4.2.** The Responsible Entity shall revoke such access to Critical Cyber Assets within 24 hours for personnel terminated for cause and within seven calendar days for personnel who no longer require such access to Critical Cyber Assets.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

- R1.** Electronic Security Perimeter — The Responsible Entity shall ensure that every Critical Cyber Asset resides within an Electronic Security Perimeter. The Responsible Entity shall identify and document the Electronic Security Perimeter(s) and all access poi

Responsible Members:

NCR01175	Ameren Services Company
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NCR01321	Southern Illinois Power Cooperative

- R1.1.** Access points to the Electronic Security Perimeter(s) shall include any externally connected communication end point (for example, dial-up modems) terminating at any device within the Electronic Security Perimeter(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** For a dial-up accessible Critical Cyber Asset that uses a non-routable protocol, the Responsible Entity shall define an Electronic Security Perimeter for that single access point at the dial-up device.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.3.** Communication links connecting discrete Electronic Security Perimeters shall not be considered part of the Electronic Security Perimeter. However, end points of these communication links within the Electronic Security Perimeter(s) shall be considered acce

Responsible Members:

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NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

- R1.4.** Any non-critical Cyber Asset within a defined Electronic Security Perimeter shall be identified and protected pursuant to the requirements of Standard CIP-005-3.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R1.5.** Cyber Assets used in the access control and/or monitoring of the Electronic Security Perimeter(s) shall be afforded the protective measures as a specified in Standard CIP-003-3; Standard CIP-004-3 Requirement R3; Standard CIP-005-3 Requirements R2 and R3;

Responsible Members:

NCR01175 Ameren Services Company
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NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
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- R1.6.** The Responsible Entity shall maintain documentation of Electronic Security Perimeter(s), all interconnected Critical and non-critical Cyber Assets within the Electronic Security Perimeter(s), all electronic access points to the Electronic Security Perimeter

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R2.** Electronic Access Controls — The Responsible Entity shall implement and document the organizational processes and technical and procedural mechanisms for control of electronic access at all electronic access points to the Electronic Security Perimeter(s).

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

- R2.1.** These processes and mechanisms shall use an access control model that denies access by default, such that explicit access permissions must be specified.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.2.** At all access points to the Electronic Security Perimeter(s), the Responsible Entity shall enable only ports and services required for operations and for monitoring Cyber Assets within the Electronic Security Perimeter, and shall document, individually or

Responsible Members:

NCR01175	Ameren Services Company
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NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

- R2.3.** The Responsible Entity shall implement and maintain a procedure for securing dial-up access to the Electronic Security Perimeter(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
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- R2.4.** Where external interactive access into the Electronic Security Perimeter has been enabled, the Responsible Entity shall implement strong procedural or technical controls at the access points to ensure authenticity of the accessing party, where technically

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

R2.5. The required documentation shall, at least, identify and describe:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2.5.1. The processes for access request and authorization.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2.5.2. The authentication methods.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2.5.3. The review process for authorization rights, in accordance with Standard CIP-004-3 Requirement R4.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

R2.5.4. The controls used to secure dial-up accessible connections.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2.6. Appropriate Use Banner — Where technically feasible, electronic access control devices shall display an appropriate use banner on the user screen upon all interactive access attempts. The Responsible Entity shall maintain a document identifying the conten

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

R3. Monitoring Electronic Access — The Responsible Entity shall implement and document an electronic or manual process(es) for monitoring and logging access at access points to the Electronic Security Perimeter(s) twenty-four hours a day, seven days a week.

Responsible Members:

NCR01175	Ameren Services Company
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NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R3.1. For dial-up accessible Critical Cyber Assets that use non-routable protocols, the Responsible Entity shall implement and document monitoring process(es) at each access point to the dial-up device, where technically feasible.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

- R3.2.** Where technically feasible, the security monitoring process(es) shall detect and alert for attempts at or actual unauthorized accesses. These alerts shall provide for appropriate notification to designated response personnel. Where alerting is not techn

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.** Cyber Vulnerability Assessment — The Responsible Entity shall perform a cyber vulnerability assessment of the electronic access points to the Electronic Security Perimeter(s) at least annually. The vulnerability assessment shall include, at a minimum, th

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.1.** A document identifying the vulnerability assessment process;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.2.** A review to verify that only ports and services required for operations at these access points are enabled;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

R4.3. The discovery of all access points to the Electronic Security Perimeter;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R4.4. A review of controls for default accounts, passwords, and network management community strings;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R4.5. Documentation of the results of the assessment, the action plan to remediate or mitigate vulnerabilities identified in the assessment, and the execution status of that action plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5. Documentation Review and Maintenance — The Responsible Entity shall review, update, and maintain all documentation to support compliance with the requirements of Standard CIP-005-3.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-005-3

Requirements:

- R5.1.** The Responsible Entity shall ensure that all documentation required by Standard CIP-005-3 reflect current configurations and processes and shall review the documents and procedures referenced in Standard CIP-005-3 at least annually.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R5.2.** The Responsible Entity shall update the documentation to reflect the modification of the network or controls within ninety calendar days of the change.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R5.3.** The Responsible Entity shall retain electronic access logs for at least ninety calendar days. Logs related to reportable incidents shall be kept in accordance with the requirements of Standard CIP-008-3.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-006-3c

Requirements:

- R1.** Physical Security Plan — The Responsible Entity shall document, implement, and maintain a physical security plan, approved by the senior manager or delegate(s) that shall address, at a minimum, the following:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1.** All Cyber Assets within an Electronic Security Perimeter shall reside within an identified Physical Security Perimeter. Where a completely enclosed (“six-wall”) border cannot be established, the Responsible Entity shall deploy and document alternative me

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** Identification of all physical access points through each Physical Security Perimeter and measures to control entry at those access points.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.3.** Processes, tools, and procedures to monitor physical access to the perimeter(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-006-3c

Requirements:

- R1.4.** Appropriate use of physical access controls as described in Requirement R4 including visitor pass management, response to loss, and prohibition of inappropriate use of physical access controls.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.5.** Review of access authorization requests and revocation of access authorization, in accordance with CIP-004-3 Requirement R4.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.6.** A visitor control program for visitors (personnel without authorized unescorted access to a Physical Security Perimeter), containing at a minimum the following:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.6.1.** Logs (manual or automated) to document the entry and exit of visitors, including the date and time, to and from Physical Security Perimeters.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-006-3c

Requirements:

R1.6.2. Continuous escorted access of visitors within the Physical Security Perimeter.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
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R1.7. Update of the physical security plan within thirty calendar days of the completion of any physical security system redesign or reconfiguration, including, but not limited to, addition or removal of access points through the Physical Security Perimeter, ph

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.8. Annual review of the physical security plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
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R2. Protection of Physical Access Control Systems — Cyber Assets that authorize and/or log access to the Physical Security Perimeter(s), exclusive of hardware at the Physical Security Perimeter access point such as electronic lock control mechanisms and badge

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-006-3c

Requirements:

R2.1. Be protected from unauthorized physical access.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
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NCR01321	Southern Illinois Power Cooperative

R2.2. Be afforded the protective measures specified in Standard CIP-003-3; Standard CIP-004-3 Requirement R3; Standard CIP-005-3 Requirements R2 and R3; Standard CIP-006-3 Requirements R4 and R5; Standard CIP-007-3; Standard CIP-008-3; and Standard CIP-009-3.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R3. Protection of Electronic Access Control Systems — Cyber Assets used in the access control and/or monitoring of the Electronic Security Perimeter(s) shall reside within an identified Physical Security Perimeter.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R4. Physical Access Controls — The Responsible Entity shall document and implement the operational and procedural controls to manage physical access at all access points to the Physical Security Perimeter(s) twenty-four hours a day, seven days a week. The Re

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-006-3c

Requirements:

- R5.** Monitoring Physical Access — The Responsible Entity shall document and implement the technical and procedural controls for monitoring physical access at all access points to the Physical Security Perimeter(s) twenty-four hours a day, seven days a week. U

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R6.** Logging Physical Access — Logging shall record sufficient information to uniquely identify individuals and the time of access twenty-four hours a day, seven days a week. The Responsible Entity shall implement and document the technical and procedural mec

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R7.** Access Log Retention — The Responsible Entity shall retain physical access logs for at least ninety calendar days. Logs related to reportable incidents shall be kept in accordance with the requirements of Standard CIP-008-3.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R8.** Maintenance and Testing — The Responsible Entity shall implement a maintenance and testing program to ensure that all physical security systems under Requirements R4, R5, and R6 function properly. The program must include, at a minimum, the following:

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-006-3c

Requirements:

R8.1. Testing and maintenance of all physical security mechanisms on a cycle no longer than three years.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R8.2. Retention of testing and maintenance records for the cycle determined by the Responsible Entity in Requirement R8.1.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R8.3. Retention of outage records regarding access controls, logging, and monitoring for a minimum of one calendar year.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R1.** Test Procedures — The Responsible Entity shall ensure that new Cyber Assets and significant changes to existing Cyber Assets within the Electronic Security Perimeter do not adversely affect existing cyber security controls. For purposes of Standard CIP-0

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R1.1.** The Responsible Entity shall create, implement, and maintain cyber security test procedures in a manner that minimizes adverse effects on the production system or its operation.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R1.2.** The Responsible Entity shall document that testing is performed in a manner that reflects the production environment.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R1.3.** The Responsible Entity shall document test results.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R2.** Ports and Services — The Responsible Entity shall establish, document and implement a process to ensure that only those ports and services required for normal and emergency operations are enabled.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.1.** The Responsible Entity shall enable only those ports and services required for normal and emergency operations.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.2.** The Responsible Entity shall disable other ports and services, including those used for testing purposes, prior to production use of all Cyber Assets inside the Electronic Security Perimeter(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.3.** In the case where unused ports and services cannot be disabled due to technical limitations, the Responsible Entity shall document compensating measure(s) applied to mitigate risk exposure.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R3.** Security Patch Management — The Responsible Entity, either separately or as a component of the documented configuration management process specified in CIP-003-3 Requirement R6, shall establish, document and implement a security patch management program

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.1.** The Responsible Entity shall document the assessment of security patches and security upgrades for applicability within thirty calendar days of availability of the patches or upgrades.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.2.** The Responsible Entity shall document the implementation of security patches. In any case where the patch is not installed, the Responsible Entity shall document compensating measure(s) applied to mitigate risk exposure.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.** Malicious Software Prevention — The Responsible Entity shall use anti-virus software and other malicious software (“malware”) prevention tools, where technically feasible, to detect, prevent, deter, and mitigate the introduction, exposure, and propagation

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R4.1.** The Responsible Entity shall document and implement anti-virus and malware prevention tools. In the case where anti-virus software and malware prevention tools are not installed, the Responsible Entity shall document compensating measure(s) applied to mi

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4.2.** The Responsible Entity shall document and implement a process for the update of anti-virus and malware prevention “signatures.” The process must address testing and installing the signatures.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R5.** Account Management — The Responsible Entity shall establish, implement, and document technical and procedural controls that enforce access authentication of, and accountability for, all user activity, and that minimize the risk of unauthorized system acce

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R5.1.** The Responsible Entity shall ensure that individual and shared system accounts and authorized access permissions are consistent with the concept of “need to know” with respect to work functions performed.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

R5.1.1. The Responsible Entity shall ensure that user accounts are implemented as approved by designated personnel. Refer to Standard CIP-003-3 Requirement R5.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.1.2. The Responsible Entity shall establish methods, processes, and procedures that generate logs of sufficient detail to create historical audit trails of individual user account access activity for a minimum of ninety days.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.1.3. The Responsible Entity shall review, at least annually, user accounts to verify access privileges are in accordance with Standard CIP-003-3 Requirement R5 and Standard CIP-004-3 Requirement R4.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.2. The Responsible Entity shall implement a policy to minimize and manage the scope and acceptable use of administrator, shared, and other generic account privileges including factory default accounts.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

R5.2.1. The policy shall include the removal, disabling, or renaming of such accounts where possible. For such accounts that must remain enabled, passwords shall be changed prior to putting any system into service.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.2.2. The Responsible Entity shall identify those individuals with access to shared accounts.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.2.3. Where such accounts must be shared, the Responsible Entity shall have a policy for managing the use of such accounts that limits access to only those with authorization, an audit trail of the account use (automated or manual), and steps for securing the a

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.3. At a minimum, the Responsible Entity shall require and use passwords, subject to the following, as technically feasible:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

R5.3.1. Each password shall be a minimum of six characters.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.3.2. Each password shall consist of a combination of alpha, numeric, and “special” characters.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5.3.3. Each password shall be changed at least annually, or more frequently based on risk.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R6. Security Status Monitoring — The Responsible Entity shall ensure that all Cyber Assets within the Electronic Security Perimeter, as technically feasible, implement automated tools or organizational process controls to monitor system events that are relate

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R6.1.** The Responsible Entity shall implement and document the organizational processes and technical and procedural mechanisms for monitoring for security events on all Cyber Assets within the Electronic Security Perimeter.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6.2.** The security monitoring controls shall issue automated or manual alerts for detected Cyber Security Incidents.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6.3.** The Responsible Entity shall maintain logs of system events related to cyber security, where technically feasible, to support incident response as required in Standard CIP-008-3.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6.4.** The Responsible Entity shall retain all logs specified in Requirement R6 for ninety calendar days.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R6.5.** The Responsible Entity shall review logs of system events related to cyber security and maintain records documenting review of logs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7.** Disposal or Redeployment — The Responsible Entity shall establish and implement formal methods, processes, and procedures for disposal or redeployment of Cyber Assets within the Electronic Security Perimeter(s) as identified and documented in Standard CIP

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7.1.** Prior to the disposal of such assets, the Responsible Entity shall destroy or erase the data storage media to prevent unauthorized retrieval of sensitive cyber security or reliability data.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7.2.** Prior to redeployment of such assets, the Responsible Entity shall, at a minimum, erase the data storage media to prevent unauthorized retrieval of sensitive cyber security or reliability data.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

- R7.3.** The Responsible Entity shall maintain records that such assets were disposed of or redeployed in accordance with documented procedures.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R8.** Cyber Vulnerability Assessment — The Responsible Entity shall perform a cyber vulnerability assessment of all Cyber Assets within the Electronic Security Perimeter at least annually. The vulnerability assessment shall include, at a minimum, the following

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R8.1.** A document identifying the vulnerability assessment process;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R8.2.** A review to verify that only ports and services required for operation of the Cyber Assets within the Electronic Security Perimeter are enabled;

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-007-3

Requirements:

R8.3. A review of controls for default accounts; and,

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R8.4. Documentation of the results of the assessment, the action plan to remediate or mitigate vulnerabilities identified in the assessment, and the execution status of that action plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9. Documentation Review and Maintenance — The Responsible Entity shall review and update the documentation specified in Standard CIP-007-3 at least annually. Changes resulting from modifications to the systems or controls shall be documented within thirty c

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-008-3

Requirements:

- R1.** Cyber Security Incident Response Plan — The Responsible Entity shall develop and maintain a Cyber Security Incident response plan and implement the plan in response to Cyber Security Incidents. The Cyber Security Incident response plan shall address, at

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1.** Procedures to characterize and classify events as reportable Cyber Security Incidents.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** Response actions, including roles and responsibilities of Cyber Security Incident response teams, Cyber Security Incident handling procedures, and communication plans.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.3.** Process for reporting Cyber Security Incidents to the Electricity Sector Information Sharing and Analysis Center (ES-ISAC). The Responsible Entity must ensure that all reportable Cyber Security Incidents are reported to the ES-ISAC either directly or thr

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-008-3

Requirements:

R1.4. Process for updating the Cyber Security Incident response plan within thirty calendar days of any changes.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.5. Process for ensuring that the Cyber Security Incident response plan is reviewed at least annually.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R1.6. Process for ensuring the Cyber Security Incident response plan is tested at least annually. A test of the Cyber Security Incident response plan can range from a paper drill, to a full operational exercise, to the response to an actual incident.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R2. Cyber Security Incident Documentation — The Responsible Entity shall keep relevant documentation related to Cyber Security Incidents reportable per Requirement R1.1 for three calendar years.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-009-3

Requirements:

- R1.** Recovery Plans — The Responsible Entity shall create and annually review recovery plan(s) for Critical Cyber Assets. The recovery plan(s) shall address at a minimum the following:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1.** Specify the required actions in response to events or conditions of varying duration and severity that would activate the recovery plan(s).

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** Define the roles and responsibilities of responders.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.** Exercises — The recovery plan(s) shall be exercised at least annually. An exercise of the recovery plan(s) can range from a paper drill, to a full operational exercise, to recovery from an actual incident.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: CIP-009-3

Requirements:

- R3.** Change Control — Recovery plan(s) shall be updated to reflect any changes or lessons learned as a result of an exercise or the recovery from an actual incident. Updates shall be communicated to personnel responsible for the activation and implementation

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4.** Backup and Restore — The recovery plan(s) shall include processes and procedures for the backup and storage of information required to successfully restore Critical Cyber Assets. For example, backups may include spare electronic components or equipment,

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R5.** Testing Backup Media — Information essential to recovery that is stored on backup media shall be tested at least annually to ensure that the information is available. Testing can be completed off site.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: COM-001-1.1

Requirements:

- R1. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide adequate and reliable telecommunications facilities for the exchange of Interconnection and operating information:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1. Internally.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2. Between the Reliability Coordinator and its Transmission Operators and Balancing Authorities.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: COM-001-1.1

Requirements:

- R3.** Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecom

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.** Unless agreed to otherwise, each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and op

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R5.** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have written operating instructions and procedures to enable continued operation of the system during the loss of telecommunications facilities.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: COM-002-2

Requirements:

- R1. Each Transmission Operator, Balancing Authority, and Generator Operator shall have communications (voice and data links) with appropriate Reliability Coordinators, Balancing Authorities, and Transmission Operators. Such communications shall be staffed an

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1. Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator, and all other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall issue directives in a clear, concise, and definitive manner; shall ensure the recipient of the directive repeats the information back correctly; and shall acknowledge the r

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-001-0

Requirements:

- R1. Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3. Each Transmission Operator and Balancing Authority shall:

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R3.1. Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.2. Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.3. Develop, maintain, and implement a set of plans for load shedding.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R3.4. Develop, maintain, and implement a set of plans for system restoration.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-001-0

Requirements:

- R4.** Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.1.** Communications protocols to be used during emergencies.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.2.** A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.3.** The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-001-0

Requirements:

R4.4. Staffing levels for the emergency.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R5. Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R6. The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighborin

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R7. The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-001-0

Requirements:

- R7.1.** The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7.2.** The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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- R7.3.** The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7.4.** The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-002-3

Requirements:

- R1.** Each Balancing Authority and Reliability Coordinator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its respective area and shall exercise specific authority to alleviate

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2.** Each Balancing Authority shall, when required and as appropriate, take one or more actions as described in its capacity and energy emergency plan, , to reduce risks to the interconnected system.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.** A Balancing Authority that is experiencing an operating capacity or energy emergency shall communicate its current and future system conditions to its Reliability Coordinator and neighboring Balancing Authorities.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4.** A Balancing Authority anticipating an operating capacity or energy emergency shall perform all actions necessary including bringing on all available generation, postponing equipment maintenance, scheduling interchange purchases in advance, and being prepa

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5.** A deficient Balancing Authority shall only use the assistance provided by the Interconnection's frequency bias for the time needed to implement corrective actions. The Balancing Authority shall not unilaterally adjust generation in an attempt to return I

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6.** If the Balancing Authority cannot comply with the Control Performance and Disturbance Control Standards, then it shall immediately implement remedies to do so. These remedies include, but are not limited to:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6.1.** Loading all available generating capacity.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6.2.** Deploying all available operating reserve.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-002-3

Requirements:

R6.3. Interrupting interruptible load and exports.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R6.4. Requesting emergency assistance from other Balancing Authorities.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R6.5. Declaring an Energy Emergency through its Reliability Coordinator; and

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R6.6. Reducing load, through procedures such as public appeals, voltage reductions, curtailing interruptible loads and firm loads.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R7. Once the Balancing Authority has exhausted the steps listed in Requirement 6, or if these steps cannot be completed in sufficient time to resolve the emergency condition, the Balancing Authority shall:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R7.1. Manually shed firm load without delay to return its ACE to zero; and

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R7.2. Request the Reliability Coordinator to declare an Energy Emergency Alert in accordance with Attachment 1-EOP-002-0 "Energy Emergency Alert Levels."

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-003-1

Requirements:

- R1. After taking all other remedial steps, a Transmission Operator or Balancing Authority operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of t

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2. Each Transmission Operator and Balancing Authority shall establish plans for automatic load shedding for underfrequency or undervoltage conditions.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR01321 Southern Illinois Power Cooperative

- R3. Each Transmission Operator and Balancing Authority shall coordinate load shedding plans among other interconnected Transmission Operators and Balancing Authorities.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R4. A Transmission Operator or Balancing Authority shall consider one or more of these factors in designing an automatic load shedding scheme: frequency, rate of frequency decay, voltage level, rate of voltage decay, or power flow levels.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR01321 Southern Illinois Power Cooperative

- R5. A Transmission Operator or Balancing Authority shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6. After a Transmission Operator or Balancing Authority Area separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator or Balancing

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-003-1

Requirements:

- R7. The Transmission Operator and Balancing Authority shall coordinate automatic load shedding throughout their areas with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal f

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR01321	Southern Illinois Power Cooperative

- R8. Each Transmission Operator or Balancing Authority shall have plans for operator-controlled manual load shedding to respond to real-time emergencies. The Transmission Operator or Balancing Authority shall be capable of implementing the load shedding in a

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-004-1

Requirements:

- R2.** A Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator or Load-Serving Entity shall promptly analyze Bulk Electric System disturbances on its system or facilities.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.** A Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator or Load-Serving Entity experiencing a reportable incident shall provide a preliminary written report to its Regional Reliability Organization and NERC.

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR00826 Midwest Independent Transmission System Operator, Inc.

NCR01321 Southern Illinois Power Cooperative

- R3.1.** The affected Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator or Load-Serving Entity shall submit within 24 hours of the disturbance or unusual occurrence either a copy of the report submitted to DOE, or, if no DOE r

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR00826 Midwest Independent Transmission System Operator, Inc.

NCR01321 Southern Illinois Power Cooperative

- R3.2.** Applicable reporting forms are provided in Attachments 1-EOP-004 and 2-EOP-004.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.3.** Under certain adverse conditions, e.g., severe weather, it may not be possible to assess the damage caused by a disturbance and issue a written Interconnection Reliability Operating Limit and Preliminary Disturbance Report within 24 hours. In such cases,

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.4.** If, in the judgment of the Regional Reliability Organization, after consultation with the Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, or Load-Serving Entity in which a disturbance occurred, a final report is re

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-005-1

Requirements:

- R11.** Following a disturbance in which one or more areas of the Bulk Electric System become isolated or blacked out, the affected Transmission Operators and Balancing Authorities shall begin immediately to return the Bulk Electric System to normal.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R11.1.** The affected Transmission Operators and Balancing Authorities shall work in conjunction with their Reliability Coordinator(s) to determine the extent and condition of the isolated area(s).

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R11.2.** The affected Transmission Operators and Balancing Authorities shall take the necessary actions to restore Bulk Electric System frequency to normal, including adjusting generation, placing additional generators on line, or load shedding.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R11.3.** The affected Balancing Authorities, working with their Reliability Coordinator(s), shall immediately review the Interchange Schedules between those Balancing Authority Areas or fragments of those Balancing Authority Areas within the separated area and mak

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-005-1

Requirements:

- R5. Each Transmission Operator and Balancing Authority shall periodically test its telecommunication facilities needed to implement the restoration plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6. Each Transmission Operator and Balancing Authority shall train its operating personnel in the implementation of the restoration plan. Such training shall include simulated exercises, if practicable.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7. Each Transmission Operator and Balancing Authority shall verify the restoration procedure by actual testing or by simulation.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-008-0

Requirements:

- R1.** Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have a plan to continue reliability operations in the event its control center becomes inoperable. The contingency plan must meet the following requirements:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1.** The contingency plan shall not rely on data or voice communication from the primary control facility to be viable.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** The plan shall include procedures and responsibilities for providing basic tie line control and procedures and for maintaining the status of all inter-area schedules, such that there is an hourly accounting of all schedules.

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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- R1.3.** The contingency plan must address monitoring and control of critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events. The pla

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-008-0

Requirements:

- R1.4.** The plan shall include procedures and responsibilities for maintaining basic voice communication capabilities with other areas.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.5.** The plan shall include procedures and responsibilities for conducting periodic tests, at least annually, to ensure viability of the plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.6.** The plan shall include procedures and responsibilities for providing annual training to ensure that operating personnel are able to implement the contingency plans.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.7.** The plan shall be reviewed and updated annually.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: EOP-008-0

Requirements:

- R1.8.** Interim provisions must be included if it is expected to take more than one hour to implement the contingency plan for loss of primary control facility.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: INT-001-3

Requirements:

R2. The Sink Balancing Authority shall ensure that Arranged Interchange is submitted to the Interchange Authority:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R2.1. If a Purchasing-Selling Entity is not involved in the Interchange, such as delivery from a jointly owned generator.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

R2.2. For each bilateral Inadvertent Interchange payback.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: INT-003-3

Requirements:

- R1. Each Receiving Balancing Authority shall confirm Interchange Schedules with the Sending Balancing Authority prior to implementation in the Balancing Authority's ACE equation.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1. The Sending Balancing Authority and Receiving Balancing Authority shall agree on Interchange as received from the Interchange Authority, including:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1.1. Interchange Schedule start and end time.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1.2. Energy profile.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.2. If a high voltage direct current (HVDC) tie is on the Scheduling Path, then the Sending Balancing Authorities and Receiving Balancing Authorities shall coordinate the Interchange Schedule with the Transmission Operator of the HVDC tie.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: INT-004-2

Requirements:

- R1.** At such time as the reliability event allows for the reloading of the transaction, the entity that initiated the curtailment shall release the limit on the Interchange Transaction tag to allow reloading the transaction and shall communicate the release of

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: INT-006-3

Requirements:

- R1. Prior to the expiration of the reliability assessment period defined in the timing requirements tables in this standard, Column B, the Balancing Authority and Transmission Service Provider shall respond to each On-time Request for Interchange (RFI), and t

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1. Each involved Balancing Authority shall evaluate the Arranged Interchange with respect to:

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1.1. Energy profile (ability to support the magnitude of the Interchange).

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1.2. Ramp (ability of generation maneuverability to accommodate).

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R1.1.3. Scheduling path (proper connectivity of Adjacent Balancing Authorities).

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: INT-009-1

Requirements:

R1. The Balancing Authority shall implement Confirmed Interchange as received from the Interchange Authority.

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: INT-010-1

Requirements:

- R1.** The Balancing Authority that experiences a loss of resources covered by an energy sharing agreement shall ensure that a request for an Arranged Interchange is submitted with a start time no more than 60 minutes beyond the resource loss. If the use of the

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: IRO-001-1.1

Requirements:

- R8.** Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities shall comply with Reliability Coordinator directives unless such actions would violate safety, equip

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: IRO-002-2

Requirements:

- R2.** Each Reliability Coordinator — or its Transmission Operators and Balancing Authorities — shall provide, or arrange provisions for, data exchange to other Reliability Coordinators or Transmission Operators and Balancing Authorities via a secure network.

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: IRO-004-2

Requirements:

- R1.** Each Transmission Operator, Balancing Authority, and Transmission Service Provider shall comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating eve

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: IRO-005-3a

Requirements:

- R10.** In instances where there is a difference in derived limits, the Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities shall always operate the Bulk Electr

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

- R5.** Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resour

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: IRO-006-5

Requirements:

- R1.** Each Reliability Coordinator and Balancing Authority that receives a request pursuant to an Interconnection-wide transmission loading relief procedure (such as Eastern Interconnection TLR, WECC Unscheduled Flow Mitigation, or congestion management procedure)

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: IRO-010-1a

Requirements:

- R3.** Each Balancing Authority, Generator Owner, Generator Operator, Interchange Authority, Load-serving Entity, Reliability Coordinator, Transmission Operator, and Transmission Owner shall provide data and information, as specified, to the Reliability Coordina

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: MOD-004-1

Requirements:

- R10.** The Load-Serving Entity or Balancing Authority shall request to import energy over firm Transfer Capability set aside as CBM only when experiencing a declared NERC Energy Emergency Alert (EEA) 2 or higher. [Time Horizon: Same-day Operations]

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

- R11.** When reviewing an Arranged Interchange using CBM, all Balancing Authorities and Transmission Service Providers shall waive, within the bounds of reliable operation, any Real-time timing and ramping requirements. [Time Horizon: Same-day Operations]

Responsible Members:

NCR00826 **Midwest Independent Transmission System Operator, Inc.**

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

- R2. The Nuclear Plant Generator Operator and the applicable Transmission Entities shall have in effect one or more Agreements that include mutually agreed to NPIRs and document how the Nuclear Plant Generator Operator and the applicable Transmission Entities

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R3. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall incorporate the NPIRs into their planning analyses of the electric system and shall communicate the results of these analyses to the Nuclear Plant Ge

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall:
[Risk Factor: High]

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R4.1. Incorporate the NPIRs into their operating analyses of the electric system.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R4.2. Operate the electric system to meet the NPIRs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R4.3. Inform the Nuclear Plant Generator Operator when the ability to assess the operation of the electric system affecting NPIRs is lost.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R6. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities and the Nuclear Plant Generator Operator shall coordinate outages and maintenance activities which affect the NPIRs. [Risk Factor: Medium]

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R8. Per the Agreements developed in accordance with this standard, the applicable Transmission Entities shall inform the Nuclear Plant Generator Operator of actual or proposed changes to electric system design, configuration, operations, limits, protection sy

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R9. The Nuclear Plant Generator Operator and the applicable Transmission Entities shall include, as a minimum, the following elements within the agreement(s) identified in R2: [Risk Factor: Medium]

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.1. Administrative elements:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.1.1. Definitions of key terms used in the agreement.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.1.2. Names of the responsible entities, organizational relationships, and responsibilities related to the NPIRs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R9.1.3. A requirement to review the agreement(s) at least every three years.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.1.4. A dispute resolution mechanism.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.2. Technical requirements and analysis:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.2.1. Identification of parameters, limits, configurations, and operating scenarios included in the NPIRs and, as applicable, procedures for providing any specific data not provided within the agreement.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R9.2.2. Identification of facilities, components, and configuration restrictions that are essential for meeting the NPIRs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.2.3. Types of planning and operational analyses performed specifically to support the NPIRs, including the frequency of studies and types of Contingencies and scenarios required.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.3. Operations and maintenance coordination:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.3.1. Designation of ownership of electrical facilities at the interface between the electric system and the nuclear plant and responsibilities for operational control coordination and maintenance of these facilities.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R9.3.2. Identification of any maintenance requirements for equipment not owned or controlled by the Nuclear Plant Generator Operator that are necessary to meet the NPIRs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.3.3. Coordination of testing, calibration and maintenance of on-site and off-site power supply systems and related components.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.3.4. Provisions to address mitigating actions needed to avoid violating NPIRs and to address periods when responsible Transmission Entity loses the ability to assess the capability of the electric system to meet the NPIRs. These provisions shall include respon

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.3.5. Provision for considering, within the restoration process, the requirements and urgency of a nuclear plant that has lost all off-site and on-site AC power. .

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R9.3.6. Coordination of physical and cyber security protection of the Bulk Electric System at the nuclear plant interface to ensure each asset is covered under at least one entity's plan.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.3.7. Coordination of the NPIRs with transmission system Special Protection Systems and underfrequency and undervoltage load shedding programs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.4. Communications and training:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.4.1. Provisions for communications between the Nuclear Plant Generator Operator and Transmission Entities, including communications protocols, notification time requirements, and definitions of terms.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: NUC-001-2

Requirements:

R9.4.2. Provisions for coordination during an off-normal or emergency event affecting the NPIRs, including the need to provide timely information explaining the event, an estimate of when the system will be returned to a normal state, and the actual time the syst

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.4.3. Provisions for coordinating investigations of causes of unplanned events affecting the NPIRs and developing solutions to minimize future risk of such events.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.4.4. Provisions for supplying information necessary to report to government agencies, as related to NPIRs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

R9.4.5. Provisions for personnel training, as related to NPIRs.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PER-001-0.1

Requirements:

- R1.** Each Transmission Operator and Balancing Authority shall provide operating personnel with the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PER-002-0

Requirements:

- R1. Each Transmission Operator and Balancing Authority shall be staffed with adequately trained operating personnel.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2. Each Transmission Operator and Balancing Authority shall have a training program for all operating personnel that are in:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.1. Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R2.2. Positions directly responsible for complying with NERC standards.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PER-002-0

Requirements:

- R3.** For personnel identified in Requirement R2, the Transmission Operator and Balancing Authority shall provide a training program meeting the following criteria:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.1.** A set of training program objectives must be defined, based on NERC and Regional Reliability Organization standards, entity operating procedures, and applicable regulatory requirements. These objectives shall reference the knowledge and competencies need

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.2.** The training program must include a plan for the initial and continuing training of Transmission Operator and Balancing Authority operating personnel. That plan shall address knowledge and competencies required for reliable system operations.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.3.** The training program must include training time for all Transmission Operator and Balancing Authority operating personnel to ensure their operating proficiency.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PER-002-0

Requirements:

- R3.4.** Training staff must be identified, and the staff must be competent in both knowledge of system operations and instructional capabilities.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PER-003-0

Requirements:

- R1. Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.1. Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2. Positions directly responsible for complying with NERC standards.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PER-005-1

Requirements:

- R3.** At least every 12 months each Reliability Coordinator, Balancing Authority and Transmission Operator shall provide each of its System Operators with at least 32 hours of emergency operations training applicable to its organization that reflects emergency

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: PRC-001-1

Requirements:

- R1. Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6. Each Transmission Operator and Balancing Authority shall monitor the status of each Special Protection System in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-001-1

Requirements:

- R3.** Each Transmission Operator, Balancing Authority, and Generator Operator shall comply with reliability directives issued by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued by

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6.** Each Transmission Operator, Balancing Authority, and Generator Operator shall render all available emergency assistance to others as requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions wo

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R8.** During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Ba

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-002-2a

Requirements:

- R1.** Each Balancing Authority and Transmission Operator shall maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each Balancing Authority and Tr

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R10.** Each Balancing Authority and Transmission Operator shall plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs).

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R17.** Balancing Authorities and Transmission Operators shall, without any intentional time delay, communicate the information described in the requirements R1 to R16 above to their Reliability Coordinator.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R18.** Neighboring Balancing Authorities, Transmission Operators, Generator Operators, Transmission Service Providers, and Load-Serving Entities shall use uniform line identifiers when referring to transmission facilities of an interconnected network.

Responsible Members:

NCR01175 Ameren Services Company
NCR01180 Big Rivers Electric Corporation
NCR01196 City of Columbia, MO
NCR01328 City of Springfield, IL - CWLP
NCR00826 Midwest Independent Transmission System Operator, Inc.
NCR01321 Southern Illinois Power Cooperative

- R19.** Each Balancing Authority and Transmission Operator shall maintain accurate computer models utilized for analyzing and planning system operations.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R2.** Each Balancing Authority and Transmission Operator shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are awa

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3.** Each Load-Serving Entity and Generator Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. Each Balancing Authority and

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-002-2a

Requirements:

- R4. Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Rel

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R5. Each Balancing Authority and Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R6. Each Balancing Authority and Transmission Operator shall plan to meet unscheduled changes in system configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional, and

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R7. Each Balancing Authority shall plan to meet capacity and energy reserve requirements, including the deliverability/capability for any single Contingency.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R8. Each Balancing Authority shall plan to meet voltage and/or reactive limits, including the deliverability/capability for any single contingency.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R9. Each Balancing Authority shall plan to meet Interchange Schedules and Ramps.

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-003-1

Requirements:

- R2. Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control, synchronous c

Responsible Members:

NCR00826 Midwest Independent Transmission System Operator, Inc.

- R3. Each Transmission Operator, Balancing Authority, and Generator Operator shall plan and coordinate scheduled outages of telemetering and control equipment and associated communication channels between the affected areas.

Responsible Members:

NCR01175 Ameren Services Company

NCR01180 Big Rivers Electric Corporation

NCR01196 City of Columbia, MO

NCR01328 City of Springfield, IL - CWLP

NCR00826 Midwest Independent Transmission System Operator, Inc.

NCR01321 Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-005-2a

Requirements:

- R2. Upon request, each Balancing Authority and Transmission Operator shall provide to other Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability, the operating data that are necessary to allow these Balanc

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-006-2

Requirements:

- R1.** Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R1.2.** Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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- R2.** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R3.** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R4.** Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern.

Responsible Members:

NCR00826	Midwest Independent Transmission System Operator, Inc.
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Registration Status as of 1/26/2012

Applicable Regional Entity: SERC

Applicable Function: BA

Standard: TOP-006-2

Requirements:

- R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for correct

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative

- R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency.

Responsible Members:

NCR01175	Ameren Services Company
NCR01180	Big Rivers Electric Corporation
NCR01196	City of Columbia, MO
NCR01328	City of Springfield, IL - CWLP
NCR00826	Midwest Independent Transmission System Operator, Inc.
NCR01321	Southern Illinois Power Cooperative