

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Registration Standards Applicability List for Coordinated Functional Registration (CFR)

CFR00090 (MRO)

January 26, 2012

**RELIABILITY | ACCOUNTABILITY**



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# Registration Status as of 1/26/2012

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CFR00090 MRO

Last Update 1/12/2011

| <b>Member Entities</b>                     | <b>Original CFR Effective Registration Date</b> |
|--|---|
| NCR10104 - Cedarburg Light & Water Utility | 1/12/2011                                       |
| NCR10105 - Hartford Electric               | 1/12/2011                                       |
| NCR10106 - Jefferson Utilities             | 1/12/2011                                       |
| NCR10107 - Kaukauna Utilities              | 1/12/2011                                       |
| NCR10108 - Menasha Utilities               | 1/12/2011                                       |
| NCR10109 - New London Utilities            | 1/12/2011                                       |
| NCR10110 - Oconomowoc Utilities            | 1/12/2011                                       |
| NCR10111 - Plymouth Utilities              | 1/12/2011                                       |
| NCR10112 - Reedsburg Utility Commission    | 1/12/2011                                       |
| NCR10113 - River Falls Municipal Utilities | 1/12/2011                                       |
| NCR01040 - WPPI Energy                     | 1/12/2011                                       |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: FAC-002-0

## Requirements:

- R1. The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with it

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.1. Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: FAC-002-0

## Requirements:

- R1.2.** Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R1.3.** Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the result

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
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| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: FAC-002-0

Requirements:

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- R1.4.** Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0.

**Responsible Members:**

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|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
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| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
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- R1.5.** Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.

**Responsible Members:**

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|                 |  |
|-----------------|--|
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| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
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| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: FAC-002-0

Requirements:

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- R2. The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
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| NCR10108 | Menasha Utilities               |
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| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
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| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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:

NCR01040 WPPI Energy

- 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:

NCR01040 WPPI Energy

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

## Responsible Members:

NCR01040 WPPI Energy

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

## Responsible Members:

NCR01040 WPPI Energy

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

## Responsible Members:

NCR01040 WPPI Energy

- 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:

NCR01040 WPPI Energy

- R5. The Nuclear Plant Generator Operator shall operate per the Agreements developed in accordance with this standard. [Risk Factor: High]

## Responsible Members:

NCR01040 WPPI Energy

- 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:

NCR01040 WPPI Energy

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: NUC-001-2

## Requirements:

- R7. Per the Agreements developed in accordance with this standard, the Nuclear Plant Generator Operator shall inform the applicable Transmission Entities of actual or proposed changes to nuclear plant design, configuration, operations, limits, protection syst

## Responsible Members:

NCR01040 WPPI Energy

- 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:

NCR01040 WPPI Energy

- 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:

NCR01040 WPPI Energy

- R9.1. Administrative elements:

## Responsible Members:

NCR01040 WPPI Energy

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

## Responsible Members:

NCR01040 WPPI Energy

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

## Responsible Members:

NCR01040 WPPI Energy

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

## Responsible Members:

NCR01040 WPPI Energy

- R9.1.4. A dispute resolution mechanism.

## Responsible Members:

NCR01040 WPPI Energy

- R9.2. Technical requirements and analysis:

## Responsible Members:

NCR01040 WPPI Energy

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: NUC-001-2

## Requirements:

**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:

**NCR01040**      **WPPI Energy**

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

### Responsible Members:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

**R9.3.** Operations and maintenance coordination:

### Responsible Members:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

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

### Responsible Members:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: NUC-001-2

## Requirements:

**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:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

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

## Responsible Members:

**NCR01040**      **WPPI Energy**

**R9.4.** Communications and training:

## Responsible Members:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

**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:

**NCR01040**      **WPPI Energy**

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

## Responsible Members:

**NCR01040**      **WPPI Energy**

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

## Responsible Members:

**NCR01040**      **WPPI Energy**

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-004-1

## Requirements:

- R1. The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R3. The Transmission Owner, any Distribution Provider that owns a transmission Protection System, and the Generator Owner shall each provide to its Regional Reliability Organization, documentation of its Misoperations analyses and Corrective Action Plans acco

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-005-1

## Requirements:

- R1.** Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall have a Protection System maintenance and testing program for Protection Systems that a

## Responsible Members:

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|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R1.1.** Maintenance and testing intervals and their basis.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
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| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-005-1

Requirements:

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R1.2. Summary of maintenance and testing procedures.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
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| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R2. Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall provide documentation of its Protection System maintenance and testing program and the

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
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| NCR10107 | Kaukauna Utilities              |
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| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
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# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-005-1

Requirements:

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R2.1. Evidence Protection System devices were maintained and tested within the defined intervals.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
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| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
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R2.2. Date each Protection System device was last tested/maintained.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
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| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-007-0

## Requirements:

- R1. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements.

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
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| NCR10108 | Menasha Utilities               |
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| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R2. The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary.

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
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| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
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| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-007-0

Requirements:

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- R3.** The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization on request (30 calendar days).

Responsible Members:

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|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
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| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-008-0

## Requirements:

- R1. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall in

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
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| NCR10108 | Menasha Utilities               |
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| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R2. The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results t

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-009-0

## Requirements:

- R1.** The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R1.1.** A description of the event including initiating conditions.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-009-0

Requirements:

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R1.2. A review of the UFLS set points and tripping times.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.3. A simulation of the event.

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.4. A summary of the findings.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

---

Standard: PRC-009-0

Requirements:

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- R2. The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to it

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

---

Standard: PRC-010-0

Requirements:

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- R1. The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assess

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R1.1. This assessment shall include, but is not limited to:

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

---

Standard: PRC-010-0

Requirements:

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- R1.1.1.** Coordination of the UVLS programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R1.1.2.** Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-010-0

Requirements:

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**R1.1.3.** A review of the voltage set points and timing.

**Responsible Members:**

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|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

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**R2.** The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request.

**Responsible Members:**

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|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-011-0

## Requirements:

- R1. The Transmission Owner and Distribution Provider that owns a UVLS system shall have a UVLS equipment maintenance and testing program in place. This program shall include:

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.1. The UVLS system identification which shall include but is not limited to:

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.1.1. Relays.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-011-0

Requirements:

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R1.1.2. Instrument transformers.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.1.3. Communications systems, where appropriate.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.1.4. Batteries.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-011-0

## Requirements:

R1.2. Documentation of maintenance and testing intervals and their basis.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

R1.3. Summary of testing procedure.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

R1.4. Schedule for system testing.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-011-0

Requirements:

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R1.5. Schedule for system maintenance.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.6. Date last tested/maintained.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-011-0

Requirements:

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- R2. The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliab

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-015-0

Requirements:

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- R1. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall maintain a list of and provide data for existing and proposed SPSs as specified in Reliability Standard PRC-013-0\_R1.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have evidence it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures as defined in Reliability Standard

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

---

Standard: PRC-015-0

Requirements:

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- R3.** The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of SPS data and the results of Studies that show compliance of new or functionally modified SPSs with NERC Reliability Standards and Regional R

Responsible Members:

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|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-016-0.1

Requirements:

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- R1. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall analyze its SPS operations and maintain a record of all misoperations in accordance with the Regional SPS review procedure specified in Reliability Standard PRC-012-

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall take corrective actions to avoid future misoperations.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

---

Standard: PRC-016-0.1

Requirements:

---

- R3.** The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the misoperation analyses and the corrective action plans to its Regional Reliability Organization and NERC on request (within 90 calendar d

Responsible Members:

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|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-017-0

## Requirements:

- R1. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have a system maintenance and testing program(s) in place. The program(s) shall include:

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.1. SPS identification shall include but is not limited to:

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.1.1. Relays.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-017-0

Requirements:

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R1.1.2. Instrument transformers.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.1.3. Communications systems, where appropriate.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.1.4. Batteries.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-017-0

Requirements:

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R1.2. Documentation of maintenance and testing intervals and their basis.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.3. Summary of testing procedure.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

---

R1.4. Schedule for system testing.

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-017-0

Requirements:

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R1.5. Schedule for system maintenance.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.6. Date last tested/maintained.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-017-0

Requirements:

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- R2. The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the program and its implementation to the appropriate Regional Reliability Organizations and NERC on request (within 30 calendar days).

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-021-1

Requirements:

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- R1. Each Transmission Owner and Distribution Provider that owns a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall annually update its UVLS data to support the Regional UVLS program database. The following data sh

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R1.1. Size and location of customer load, or percent of connected load, to be interrupted.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-021-1

Requirements:

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R1.2. Corresponding voltage set points and overall scheme clearing times.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.3. Time delay from initiation to trip signal.

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R1.4. Breaker operating times.

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-021-1

Requirements:

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- R1.5. Any other schemes that are part of or impact the UVLS programs such as related generation protection, islanding schemes, automatic load restoration schemes, UFLS and Special Protection Systems.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R2. Each Transmission Owner and Distribution Provider that owns a UVLS program shall provide its UVLS program data to the Regional Reliability Organization within 30 calendar days of a request.

Responsible Members:

---

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-022-1

## Requirements:

- R1.** Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall analyze and document all UVLS operations and Misoperations. The analysis

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R1.1.** A description of the event including initiating conditions.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-022-1

## Requirements:

R1.2. A review of the UVLS set points and tripping times.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

R1.3. A simulation of the event, if deemed appropriate by the Regional Reliability Organization. For most events, analysis of sequence of events may be sufficient and dynamic simulations may not be needed.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

R1.4. A summary of the findings.

### Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-022-1

Requirements:

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R1.5. For any Misoperation, a Corrective Action Plan to avoid future Misoperations of a similar nature.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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R2. Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program shall provide documentation of its analysis of UVLS program performance to its Regional Reliability Organization within 90 calendar days of a request.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-023-1

## Requirements:

- R1.** Each Transmission Owner, Generator Owner, and Distribution Provider shall use any one of the following criteria (R1.1 through R1.13) for any specific circuit terminal to prevent its phase protective relay settings from limiting transmission system loadabi

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R1.1.** Set transmission line relays so they do not operate at or below 150% of the highest seasonal Facility Rating of a circuit, for the available defined loading duration nearest 4 hours (expressed in amperes).

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-023-1

Requirements:

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- R1.10.** Set transformer fault protection relays and transmission line relays on transmission lines terminated only with a transformer so that they do not operate at or below the greater of: - 150% of the applicable maximum transformer nameplate rating (expressed

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R1.11.** For transformer overload protection relays that do not comply with R1.10 set the relays according to one of the following: - Set the relays to allow the transformer to be operated at an overload level of at least 150% of the maximum applicable nameplate

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-023-1

## Requirements:

- R1.12.** When the desired transmission line capability is limited by the requirement to adequately protect the transmission line, set the transmission line distance relays to a maximum of 125% of the apparent impedance (at the impedance angle of the transmission line)

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.12.1.** Set the maximum torque angle (MTA) to 90 degrees or the highest supported by the manufacturer.

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-023-1

Requirements:

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**R1.12.2.** Evaluate the relay loadability in amperes at the relay trip point at 0.85 per unit voltage and a power factor angle of 30 degrees.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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**R1.12.3.** Include a relay setting component of 87% of the current calculated in R1.12.2 in the Facility Rating determination for the circuit.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-023-1

Requirements:

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- R1.13.** Where other situations present practical limitations on circuit capability, set the phase protection relays so they do not operate at or below 115% of such limitations.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R1.2.** Set transmission line relays so they do not operate at or below 115% of the highest seasonal 15-minute Facility Rating<sub>2</sub> of a circuit (expressed in amperes).

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-023-1

## Requirements:

- R1.3.** Set transmission line relays so they do not operate at or below 115% of the maximum theoretical power transfer capability (using a 90-degree angle between the sending-end and receiving-end voltages and either reactance or complex impedance) of the circuit

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

- R1.3.1.** An infinite source (zero source impedance) with a 1.00 per unit bus voltage at each end of the line.

## Responsible Members:

|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-023-1

Requirements:

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**R1.3.2.** An impedance at each end of the line, which reflects the actual system source impedance with a 1.05 per unit voltage behind each source impedance.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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**R1.4.** Set transmission line relays on series compensated transmission lines so they do not operate at or below the maximum power transfer capability of the line, determined as the greater of: - 115% of the highest emergency rating of the series capacitor. - 1

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: PRC-023-1

Requirements:

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- R1.5.** Set transmission line relays on weak source systems so they do not operate at or below 170% of the maximum end-of-line three-phase fault magnitude (expressed in amperes).

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

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- R1.6.** Set transmission line relays applied on transmission lines connected to generation stations remote to load so they do not operate at or below 230% of the aggregated generation nameplate capability.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-023-1

## Requirements:

- R1.7.** Set transmission line relays applied at the load center terminal, remote from generation stations, so they do not operate at or below 115% of the maximum current flow from the load to the generation source under any system configuration.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R1.8.** Set transmission line relays applied on the bulk system-end of transmission lines that serve load remote to the system so they do not operate at or below 115% of the maximum current flow from the system to the load under any system configuration.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

Standard: PRC-023-1

## Requirements:

- R1.9.** Set transmission line relays applied on the load-end of transmission lines that serve load remote to the bulk system so they do not operate at or below 115% of the maximum current flow from the load to the system under any system configuration.

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

- R2.** The Transmission Owner, Generator Owner, or Distribution Provider that uses a circuit capability with the practical limitations described in R1.6, R1.7, R1.8, R1.9, R1.12, or R1.13 shall use the calculated circuit capability as the Facility Rating of the

## Responsible Members:

|                 |  |
|-----------------|--|
| <b>NCR10104</b> | <b>Cedarburg Light &amp; Water Utility</b> |
| <b>NCR10105</b> | <b>Hartford Electric</b>                   |
| <b>NCR10106</b> | <b>Jefferson Utilities</b>                 |
| <b>NCR10107</b> | <b>Kaukauna Utilities</b>                  |
| <b>NCR10108</b> | <b>Menasha Utilities</b>                   |
| <b>NCR10109</b> | <b>New London Utilities</b>                |
| <b>NCR10110</b> | <b>Oconomowoc Utilities</b>                |
| <b>NCR10111</b> | <b>Plymouth Utilities</b>                  |
| <b>NCR10112</b> | <b>Reedsburg Utility Commission</b>        |
| <b>NCR10113</b> | <b>River Falls Municipal Utilities</b>     |
| <b>NCR01040</b> | <b>WPPI Energy</b>                         |

# Registration Status as of 1/26/2012

Applicable Regional Entity: MRO

Applicable Function: DP

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Standard: TOP-001-1

Requirements:

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- R4. Each Distribution Provider and Load-Serving Entity shall comply with all reliability directives issued by the Transmission Operator, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements.

Responsible Members:

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|          |                                 |
|----------|---------------------------------|
| NCR10104 | Cedarburg Light & Water Utility |
| NCR10105 | Hartford Electric               |
| NCR10106 | Jefferson Utilities             |
| NCR10107 | Kaukauna Utilities              |
| NCR10108 | Menasha Utilities               |
| NCR10109 | New London Utilities            |
| NCR10110 | Oconomowoc Utilities            |
| NCR10111 | Plymouth Utilities              |
| NCR10112 | Reedsburg Utility Commission    |
| NCR10113 | River Falls Municipal Utilities |
| NCR01040 | WPPI Energy                     |