

**Compliance Questionnaire and  
Reliability Standard Audit Worksheet**

**NUC-001-2.1 — Nuclear Plant Interface Coordination**

**Registered Entity:** *(Must be completed by the Compliance Enforcement Authority)*

**NCR Number:** *(Must be completed by the Compliance Enforcement Authority)*

**Applicable Function(s): TOP, TO, TP, TSP, BA, RC, PA, DP, LSE, GO, GOP**

**Auditors:**

**Disclaimer**

NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC’s and the Regional Entities’ assessment of a registered entity’s compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC’s Reliability Standards can be found on NERC’s website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

The NERC RSAW language contained within this document provides a non‑exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity’s adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserves the right to request additional evidence from the registered entity that is not included in this RSAW. Additionally, this RSAW includes excerpts from FERC Orders and other regulatory references. The FERC Order cites are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail.

# Subject Matter Experts

Identify your company’s subject matter expert(s) responsible for this Reliability Standard. Include the person's title, organization and the requirement(s) for which they are responsible. Insert additional lines if necessary.

**Response: *(Registered Entity Response Required)***

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| **SME Name** | **Title** | **Organization** | **Requirement** |
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# Reliability Standard Language

**NUC-001-2.1 — Nuclear Plant Interface Coordination**

**Purpose:**

This standard requires coordination between Nuclear Plant Generator Operators and Transmission Entities for the purpose of ensuring nuclear plant safe operation and shutdown.

**Applicability:**

NPGO, TOP, TO, TP, TSP, BA, RC, PA, DP, LSE, GO, GOP

**NERC BOT Approval Date: 5/1/2007**

**FERC Approval Date: 10/16/2008**

**Reliability Standard Enforcement Date in the United States: 4/1/2013**

**Requirements**:

**R1.** The Nuclear Plant Generator Operator shall provide the proposed NPIRs in writing to the applicable Transmission Entities and shall verify receipt [*Risk Factor: Lower*]

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R1 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R1.**

\_\_\_ Review evidence the Nuclear Plant Generator operator provided the proposed Nuclear Plant Interface Requirements in writing to the applicable Transmission Entities.

\_\_\_ Review the Nuclear Plant Generator Operator received confirmation of the delivery of the NPIR.

**Detailed notes:**

**R2.** The Nuclear Plant Generator Operator and the applicable Transmission Entities shall have in effect one or more Agreements1 that include mutually agreed to NPIRs and document how the Nuclear Plant Generator Operator and the applicable Transmission Entities shall address and implement these NPIRs. [Risk Factor: Medium]

1. Agreements may include mutually agreed upon procedures or protocols in effect between entities or between departments of a vertically integrated system.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R2 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2 R2.1.**

\_\_\_ Review evidence the Nuclear Plant Generator Operator and Transmission Entities have in effect one or more agreements.

\_\_\_ Verify agreements include mutually agreed to NPIRS

\_\_\_ Verify agreements identify how the Nuclear Plant Generator Operator and Transmission Entities address implementing the NPIRs.

**Detailed notes:**

**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 Generator Operator. [*Risk Factor: Medium*]

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R3 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R3.**

\_\_\_ Review evidence the Transmission Entities incorporated the NPIRs into their planning process.

\_\_\_ Verify the Transmission Entity communicated the results of the analyses to the Nuclear Plant Generator Operator.

**Detailed notes:**

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

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

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

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

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R4 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R4.**

\_\_\_ (R4.1) Review evidence the Transmission Entities incorporated the NPIRs into their operating analyses of the electric system.

\_\_\_ (R4.2) Verify the Transmission Entity operated the electric system to meet the NPIRs.

\_\_\_ (R4.3) As the Transmission Entity, have you lost the ability to assess the operation of the electric system affecting the NPIR?

\_\_\_ If yes, Verify the Transmission Entity has informed the Nuclear Generator Operator.

**Detailed notes:**

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

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R5 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R5.**

\_\_\_ Review evidence the Nuclear Plant Generator Operator operates per the agreements developed in accordance with this standard.

**Detailed notes:**

**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*]

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R6 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R6.**

\_\_\_ Review evidence the applicable Transmission Entities and Nuclear Plant Generator Operator coordinate outages and maintenance activities per the agreements.

**Detailed notes:**

**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 Systems, or capabilities that may impact the ability of the electric system to meet the NPIRs. [*Risk Factor: High*]

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R7 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R7.**

\_\_\_ Review evidence Nuclear Plant Generator Operator informed the applicable Transmission Entities of actual or proposed changes to nuclear plant design, configuration, operations, limits, Protection Systems, or capabilities that may impact the ability of the electric system to meet the NPIRs

**Detailed notes:**

**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 systems, or capabilities that may impact the ability of the electric system to meet the NPIRs. [*Risk Factor: High*]

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R8 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R8.**

\_\_\_ Review evidence applicable Transmission Entities informed the Nuclear Plant Generator Operator of actual or proposed changes to nuclear plant design, configuration, operations, limits, protection systems, or capabilities that may impact the ability of the electric system to meet the NPIRs.

**Detailed notes:**

**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*]

**R9.1.** Administrative elements:

**R9.1.1.** Definitions of key terms used in the agreement. (Retirement of R9.1.1 approved by FERC effective January 21, 2014.)

**R9.1.2.** Names of the responsible entities, organizational relationships, and responsibilities related to the NPIRs. (Retirement of R9.1.2 approved by FERC effective January 21, 2014.)

**R9.1.3.** A requirement to review the agreement(s) at least every three years. (Retirement of R9.1.3 approved by FERC effective January 21, 2014.)

**R9.1.4.** A dispute resolution mechanism. (Retirement of R9.1.4 approved by FERC effective January 21, 2014.)

**R9.2.** Technical requirements and analysis:

**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.

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

**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.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

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

**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.

**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.

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

**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 responsibility to notify the Nuclear Plant Generator Operator within a specified time frame.

**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.

**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.

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

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

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

**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.

**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 system is returned to normal.

**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.

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

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

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R9 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to NUC-001-2.1 R9.**

\_\_\_ Verify 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:

Technical requirements and analysis:

\_\_\_ (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.

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

\_\_\_ (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.

Operations and maintenance coordination:

\_\_\_ (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.

\_\_\_ (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.

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

\_\_\_ (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 responsibility to notify the Nuclear Plant Generator Operator within a specified time frame.

\_\_\_ (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.

\_\_\_ (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.

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

Communications and training:

\_\_\_ (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.

\_\_\_ (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 system is returned to normal.

\_\_\_ (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.

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

\_\_\_ (R9.4.5) Provisions for personnel training, as related to NPIRs.

**Detailed notes:**

# Supplemental Information

**Other ‑** The list of questions above is not all inclusive of evidence required to show compliance with the Reliability Standard. Provide additional information here**, as necessary that** demonstrates compliance with this Reliability Standard.

**Entity** **Response: *(Registered Entity Response)***

# Compliance Findings Summary (to be filled out by auditor)

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| **Req.** | **NF** | **PV** | **OEA** | **NA** | **Statement** |
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**Excerpts From FERC Orders -- For Reference Purposes Only**

**Updated Through ----------------**

**NUC-001-1**

**Order 716**

http://www.nerc.com/files/Order\_716‑NUC\_Standard.pdf

P1 "Pursuant to section 215 of the Federal Power Act (FPA), the Commission

approves the Nuclear Plant Interface Coordination Reliability Standard

(NUC‑001‑1) developed by the North American Electric Reliability Corporation

(NERC), the Commission‑certified Electric Reliability Organization (ERO)...."

P2 "On November 19, 2007, NERC filed its petition for Commission approval of

the Nuclear Plant Interface Coordination Reliability Standard, designated

NUC‑001‑1 (November 19, 2007 Petition). NERC supplemented the filing on

December 11, 2007 (December 11, 2007 Supplement) to propose four related

NERC Glossary terms: “Nuclear Plant Generator Operator,” “Nuclear Plant

Off‑site Power Supply (Off‑site Power),” “Nuclear Plant Licensing

Requirements (NPLRs),” and “Nuclear Plant Interface Requirements (NPIRs).”

In the November 19, 2007 Petition, NERC stated that the proposed Reliability

Standard addresses the coordination of interface requirements for two domains:

(i) Bulk‑Power System planning and operations and (ii) nuclear power plant

licensing requirements for off‑site power necessary to enable safe nuclear plant

operation and shutdown."

P4 "...The Reliability Standard requires nuclear plant generator operators and

transmission entities to develop expectations and procedures for coordinating

operations to meet the nuclear plant licensing requirements, as well as SOLs and

IROLs, and to develop agreements or arrangements, which may include mutually

agreed upon procedures or protocols, reflecting those expectations and

procedures. These agreements or arrangements are known as interface

agreements. The resulting operations and planning requirements developed in the

agreements to address the nuclear plant licensing requirements, SOLs and IROLs

are called nuclear plant interface requirements or NPIRs.10 NERC stated that

Requirements R3 through R8, which state that the interface agreement parties

will address the NPIRs in planning, operations, and facility upgrade and outage

coordination, provide additional specificity on these expectations."

P17 "...The Commission finds that coordination of nuclear licensing requirements and

grid operating limits through auditable interface agreements will ensure that an

important resource is operated safely and reliably, while minimizing grid

disturbances from separation of nuclear power plants from the grid, due to the

loss or degradation of auxiliary power supply. Further, the Commission

disagrees with CenterPoint Energy that the Reliability Standard is flawed and

unnecessary. Nuclear power plants represent an important power resource and

provide reliability support throughout the Bulk‑Power System. Unlike other

large units, nuclear power plants are subject to separate regulatory oversight that

mandates stringent operating and auxiliary power requirements, which, if not

met, require the plant to separate from the grid. We find that NUC‑001‑1 is an

appropriate means to ensure that the particular requirements faced by nuclear

power plants are met, maximizing the reliability support to be provided while

minimizing the potential for grid disruption caused by separation."

P18 "...NUC‑001‑1 supplements NRC oversight of nuclear plant facilities by

providing oversight of the transmission entities that operate facilities on the

Bulk‑Power System providing off‑site power supply and delivery service to meet

nuclear plant licensing requirements."

P21 "The Commission approves the applicability provisions of NUC‑001‑1 as

appropriately identifying the applicable entities, while providing the flexibility to

accommodate differing design criteria, grid configurations and services procured

by the various nuclear power plants addressed. The Commission finds

appropriate the ERO’s use of the term transmission entities in NUC‑001‑1 to

refer to the subset of registered entities that provide services to nuclear plant

generator operators. Similarly, the term nuclear plant generator operators refers

to the subset of generator owners and generator operators that are NRC

licensees. While the Commission prefers that Reliability Standards apply to all

entities within a functional category defined in the Registry Criteria, it has

approved appropriate limitations incorporated into an applicability provision. We

address the specific questions raised by the Commission in the NOPR, as well as

responses and comments, on an issue‑by‑issue basis below."

P28 "The Commission accepts NERC’s proposal to require nuclear plant generator

operators to identify entities that provide services related to off‑site power

supply or delivery. With NERC’s and other industry representatives’ assurances,

the Commission is satisfied that the appropriate transmission entities can be

identified based on the nuclear plant generator operators’ historical compliance

with NRC licensing requirements to obtain off‑site power and develop solutions

with grid operators to avoid service interruptions from foreseeable grid

disturbances."

P29 "...A nuclear plant generator operator may be found in noncompliance for failing

to provide notice to an entity responsible for providing services relating to its

off‑site power‑related licensing requirements."

P34 "In the NOPR, the Commission proposed to accept the identification and

registration process described by NERC in the November 19, 2007 Petition with

the understanding that NERC will use its authority under the compliance registry

process to register all users, owners, and operators of the Bulk‑Power System

that provide transmission or generating services relating to off‑site power supply

or delivery. Further, the Commission requested clarification from the ERO, as

well as public comment, on three issues: (i) how NERC’s plan to identify

transmission entities on a “plant‑by‑plant basis” in the compliance registration

process relates to the definition of bulk electric system; (ii) whether NUC‑001‑1

is enforceable against a transmission entity upon execution of an interface

agreement or some earlier time; and (iii) how the Reliability Standard will be

implemented for an entity that both operates a nuclear power plant and is

responsible to provide services related to NPIRs."

P42 "The Commission accepts NERC’s approach to determining applicable entities.

The Commission agrees with the ERO that the identification of transmission

entities, which may fit any one of 11 functional categories described in the

NERC Functional Model, provides the ERO with needed breadth and flexibility

in identifying and registering all users, owners and operators of the Bulk‑Power

System that provide services related to NPIRs."

P46 "...We also reject the concerns raised by Wisconsin Electric and TVA that the

terms transmission entity and nuclear plant generator operator do not appear in

the NERC Functional Model. While the NERC Functional Model is a useful

guidance document, “the Applicability section of a particular Reliability Standard

should be the ultimate determinant of applicability of each Reliability Standard.”

Moreover, the ERO’s definition of transmission entity is linked to the functional

categories set forth in the NERC Functional Model.27 Likewise, the nuclear

plant generator operator can simply be viewed as a sub‑category of the generator

operator function."

P51 "The Commission accepts NERC’s clarification that registration of lower voltage

facilities and the applicability of NUC‑001‑1 will be limited to those facilities

identified by the nuclear plant generator operator in its NPIRs. (Footnote 30:

This approach for lower voltage facilities is consistent with our determination in

prior proceedings that the ERO may register an entity that falls below the

minimum registry criteria on a facility‑by‑facility basis. See Order No. 693‑A at

P 38.) We would expect that any NPIRs agreed to between a nuclear plant

generator operator and transmission entity would include all facilities needed to

transmit offsite power and auxiliary power to the nuclear facility. The

Commission remains sensitive to the need for NERC to register operators of

lower‑voltage facilities used to deliver off‑site power. The NOPR stated the

Commission’s understanding that NERC would register entities operating

facilities not currently identified in the Regional Entities’ definition of bulk

electric system that are needed for Bulk‑Power System reliability, through

NERC's authority to register an owner or operator of an otherwise exempt

facility that is needed for Bulk‑Power System reliability, on a facility‑by‑facility

basis. We note that it is in the best interest of the nuclear plant generator

operator to have any such facility identified in the NPIRs."

P68 "...NERC and others have made clear that NUC‑001‑1 was intended to apply to

transmission entities following receipt of notification from the nuclear plant

generator operator, rather than after execution of the interface agreement. The

applicability of NUC‑001‑1 is determined by the function performed by the

entity—that is, an entity that provides services relating to a nuclear plant

generator operator’s nuclear plant licensing requirements is subject to

NUC‑001‑1 on the latter of the effective date of the Reliability Standard or when

a proposed NPIR is provided by the nuclear plant generator operator. This is

consistent with other Reliability Standards where an entity is subject to a

Reliability Standard based on the factual determination of whether it operates

certain facilities or provides a certain service, not based on the consent of the

entity."

P69 "We believe that this interpretation resolves the concerns of commenters who

predict that entities supplying services to enable nuclear plant generator

operators to meet nuclear plant licensing requirements would balk at executing

an interface agreement if they become subject to NUC‑001‑1. This should not

occur since transmission entities will be identified as providing services relating

to NPIRs by a nuclear plant generator operator and will become subject to

NUC‑001‑1 when they receive notice, not when they finalize an agreement."

P73 "The Commission accepts NERC’s clarification that NUC‑001‑1 applies to

nuclear plant generator operators and transmission entities where both parties

are in a single integrated system. NERC clarified that a formal agreement is not

necessary to have an agreement, procedures, or protocols in place that will

comply with Requirement R2. Based on this clarification and industry comments,

we accept NERC’s conclusion that the Requirements of NUC‑001‑1 can be met

by a single entity that is both the nuclear plant generator operator and the

transmission entity. The Commission directs the ERO, in enforcing NUC‑001‑1,

to require that an integrated entity provides documentation of its arrangements,

including appropriate procedures and protocols, ensuring that its business units

perform the functions under NUC‑001‑1 that would otherwise be met by

separate entities. This will ensure that an integrated entity’s compliance with

NUC‑001‑1 is auditable in a manner comparable to other entities that are subject

to the Reliability Standard."

P80 "The Commission accepts the ERO’s explanation of its registration and

compliance options when parties fail to come to an agreement. Should parties

fail to come to an agreement and thus find themselves in violation of the

requirement that they have such an agreement in place, NERC states that it may

require mediation or arbitration as a remedial action. We agree that ordering

such dispute resolution processes may be an appropriate response in some

instances in which there is no immediate risk to grid reliability and support

NERC requiring the use of arbitration or mediation on a voluntary basis where

appropriate." (Footnote 43: Where there is an immediate reliability risk, we

direct the ERO to take appropriate action to address the risk.)

P87 "Based on NERC’s statement that parties may rely on less formal procedures

and protocols, the Commission finds that NUC‑001‑1 does not dictate any

particular format for the interface agreement. Nuclear plant generator operators

and transmission entities may rely on pre‑existing arrangements so long as the

parties can document the fact that they have agreed that the pre‑existing

arrangements address all of the NPIRs, cover all required facilities and otherwise

fulfill the requirements of NUC‑001‑1. (Footnote 47: Nuclear plant generator

operators and transmission entities that choose to rely on generally‑applicable

tariffs should make provision to ensure that the tariff terms and conditions

continue to meet the parties’ needs should the tariff or nuclear licensing

requirements change, and document such an arrangement.) This includes

multi‑party agreements."

P100 "...While not all system changes can be anticipated, the Commission expects that

significant changes to the parties’ operating relationship would be formalized and

documented in an auditable format as interim changes in an addendum or

revisions to the agreement, as appropriate."

P109 "The Commission clarifies that employees of nuclear plant generator operators

and transmission entities should receive the training necessary to execute the

terms of the interface agreement, and such training should be specified in the

interface agreement between the parties. In addition, employees operating

facilities used to provide services to meet NPIRs should be properly trained to

Reliability Standard training requirements that apply to those facilities or the

function served by the employees."

P124 "The Commission confirms its understanding that coordination under the

Reliability Standard includes coordination among transmission entities. No party

objected to the Commission’s interpretation that the coordination required under

Requirement R9.3.1 includes designating an entity to coordinate among various

transmission entities providing unbundled services, and that such a role had been

previously filled by former control area operators. Therefore, we adopt that

proposal."

**February 3, 2012 Order Approving Revised Definition of Protection System, Docket No. RD11-13-000**

<http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order_approving_modif_Definition_2.3.2012.pdf>

P5. The current definition of Protection System includes protective relays, associated communication systems, voltage and current sensing devices, station batteries and DC control circuitry.The revised definition with the proposed modification states:

“Protection System –

* Protective relays which respond to electrical quantities,
* Communications systems necessary for correct operation of protective functions,
* Voltage and current sensing devices providing inputs to protective relays,
* Station dc supply associated with protective functions (including station batteries, battery chargers, and non-battery-based dc supply), and
* Control circuitry associated with protective functions through the trip coil(s) of the circuit breaker or other interrupting devices.”

P9. The Commission finds that the ERO’s modification to the definition of Protection System is just, reasonable, not unduly discriminatory or preferential, and in the public interest.As explained by NERC, battery chargers are essential to assure that batteries used to operate protection systems are in a continuous state of readiness. Therefore, it is appropriate that battery chargers be included in the definition of Protection System. The modified definition removes any uncertainty as to whether battery chargers should be included in a responsible entity’s maintenance and testing program and, therefore, closes a reliability gap identified by NERC.

Order No. 788

<http://www.nerc.com/FilingsOrders/us/Pages/2013fercordersrules.aspx>

FERC issued a final rule approving NERC’s proposed retirement of 34 requirements within 19 Reliability Standards in response to the Commission’s proposal in paragraph 81 of the March 15, 2012 order in Docket No. RC11-6-000. The final rule approved the retirement of the 34 requirements that either provided little protection for Bulk-Power System reliability or were redundant with other aspects of the Reliability Standards, including NUC-001-2, Requirements R9.1, R9.1.1, R9.1.2, R9.1.3, and R1.9.4.

**Revision History**

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| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | May 2010 | RSAW Working Group | New Document. |
| 1 | December 2010 | QRSAW WG | Revised Findings Table, modified Supporting Evidence tables, and added Revision History. |
| 1 | January 2011 | Craig Struck | Reviewed for format consistency and content. |
| 1.1 | September 2011 | Craig Struck | Format changes for 2012. |
| 2.2 | April 2014 | RSAWTF | Revised to reflect removal of R9.1 and subrequirements per Paragraph 81 project and Implementation Plan for revised term for “Protection System” per Project 2007-17. |
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