

Proposed Violation Severity Levels for the IRO Series of Standards:

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Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-001-1 Reliability Coordination — Responsibilities and Authorities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1	The RRO, subregion or interregional coordinating group did not communicate the assignment of the Reliability Coordinators to operating entities clearly.	The RRO, subregion or interregional coordinating group did not clearly identify the coordination of Reliability Coordinator areas within the region.	The RRO, subregion or interregional coordinating group did not coordinate assignment of the Reliability Coordinators across regional boundaries.	The RRO, subregion or interregional coordinating group did not assign any Reliability Coordinators.	
Revised R1	N/A	N/A	The responsible entity did not establish one or more Reliability Coordinators for a portion of its reliability region of responsibility.	The responsible entity did not establish one or more Reliability Coordinators for any of its reliability region of responsibility.	Revised based on FERC guideline 3 - VSLs must be consistent with the requirement. The intent of the requirement is to establish RC(s)
Original R2	The Reliability Coordinator has failed to follow the administrative portions of its regional reliability plan.	The Reliability Coordinator has failed to follow steps in its regional reliability plan that require operator interventions or actions.	The Reliability Coordinator does not have a regional reliability plan approved by the NERC OC.	The Reliability Coordinator does not have an unapproved regional reliability plan.	
Revised R2	N/A	N/A	N/A	The Reliability Coordinator does not have a regional reliability plan approved by the NERC OC.	Revised based on FERC's guideline 2b - don't use ambiguous language and FERC's guideline 3 - VSLs must be consistent with the requirement.
Original R3	N/A	N/A	The Reliability Coordinator cannot demonstrate that it has clear authority to act or direct actions to preserve	The Reliability Coordinator failed to take or direct to preserve the reliability and security of the Bulk	N/A

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-001-1 Reliability Coordination — Responsibilities and Authorities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
			transmission security and reliability of the Bulk Electric System.	Electric System within 30 minutes of identifying those actions.	
Revised R3	N/A	N/A	The Reliability Coordinator cannot demonstrate that it has clear authority to act or direct actions to preserve transmission security and reliability of the Bulk Electric System.	The Reliability Coordinator failed to take or direct to preserve the reliability and security of the Bulk Electric System within 30 minutes of identifying those actions.	No changes.
Original R4	1. Less than 25% of the tasks are not documented in the agreement or 2. less than 25% of the tasks are not performed according to the agreement.	1. More than 25% but 50% or less of the tasks are not documented in the agreement or 2. more than 25% but 50% or less of the tasks are not performed according to the agreement.	1. More than 50% but 75% or less of the tasks are not documented in the agreement or 2. more than 50% but 75% or less of the tasks are not performed according to the agreement.	1. There is no formal operating agreement for tasks delegated by the Reliability Coordinator, 2. more than 75% of the tasks are not documented in the agreement or 3. more than 75% of the tasks are not performed according to the agreement.	
Revised R4	5% or less of the tasks are not documented in the agreement. OR 5% or less of the tasks are not performed according to the agreement.	<u>More than 5% up to (and including) 10%</u> More than 5%, but 10% or less of the tasks; are not documented in the agreement. OR <u>More than 5% up to (and including) 10%</u> More than	<u>More than 10% up to (and including) 15%</u> More than 10%, but 15% or less of the tasks; are not documented in the agreement. OR <u>More than 10% up to (and</u>	There is no formal operating agreement for tasks delegated by the Reliability Coordinator. OR More than 15% of the tasks are not documented in the	Changed for consistent format. Removed quartiles. <u>Modified % language for consistency between standards.</u>

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Standard Number IRO-001-1 Reliability Coordination — Responsibilities and Authorities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		5%, but 10% or less of the tasks, are not performed according to the agreement.	10%, but 15% or less of the tasks, are not performed according to the agreement. <u>including) 15%</u> More than	agreement. OR More than 15% of the tasks are not performed according to the agreement.	
Original R5	25% or less of the delegate entities are not identified in the reliability plan.	More than 25% but 50% or less of the delegate entities are not identified in the reliability plan.	More than 50% but 75% or less of the delegate entities are not identified in the reliability plan.	1. There is no reliability plan or 2. more than 75% of the delegate entities are not identified in the reliability plan.	
Revised R5	5% or less of the delegate entities are not identified in the reliability plan.	<u>More than 5% up to (and including) 10%</u> More than 5% but 10% or less of the delegate entities are not identified in the reliability plan.	<u>More than 10% up to (and including) 15%</u> More than 10% but 15% or less of the delegate entities are not identified in the reliability plan.	There is no reliability plan. OR More than 15% of the delegate entities are not identified in the reliability plan.	Changed for consistent format. Removed quartiles. <u>Modified % language for consistency between standards.</u>
Original R6	N/A	1. The Reliability Coordinator has failed to demonstrate at least one delegated task was performed by NERC certified Reliability Coordinator operating personnel or	1. The Reliability Coordinator has failed to demonstrate at least one delegated task was performed by NERC certified Reliability Coordinator operating personnel and did not	The Reliability Coordinator has failed to demonstrate any delegated tasks were performed by NERC certified Reliability Coordinator operating personnel and did not require the delegate entity	

Standard Number IRO-001-1 Reliability Coordination — Responsibilities and Authorities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		2. The Reliability Coordinator did not require the delegate entity to have NERC certified Reliability Coordinator operating personnel.	require the delegate entity to have NERC certified Reliability Coordinator operating personnel or 2. The Reliability Coordinator has failed to demonstrate at least two delegated task were performed by NERC certified Reliability Coordinator operating personnel.	to have NERC certified Reliability Coordinator operating personnel.	
Revised R6	The Reliability Coordinator failed to demonstrate that 5% or less of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that <u>more than 5% up to (and including) 10%</u> more than 5% but less than 10% of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that <u>more than 10% up to (and including) 15%</u> 10-15%, inclusive, of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	The Reliability Coordinator failed to demonstrate that more than 15% of its delegated tasks were being performed by NERC certified Reliability Coordinator operating personnel.	Revised to simplify and apply the 5, 10, 15% criteria. Modified % language for consistency between standards.
Original R7	The Reliability Coordinator has demonstrated the existence of coordination agreements with adjacent Reliability Coordinators but the agreements are not clear or comprehensive.	The Reliability Coordinator has demonstrated the existence of the coordination agreements with adjacent Reliability Coordinators but the agreements do not coordinate actions required in the adjacent Reliability	The Reliability Coordinator has demonstrated the existence of the coordination agreements with adjacent Reliability Coordinators but the agreements do not coordinate actions required in the adjacent Reliability	The Reliability Coordinator has failed to demonstrate the existence of any coordination agreements with adjacent Reliability Coordinators.	

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Standard Number IRO-001-1 Reliability Coordination — Responsibilities and Authorities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		Coordinator to mitigate SOL or IROL violations in its own Reliability Coordinator area.	Coordinator to mitigate SOL and IROL violations in its own Reliability Coordinator area.		
Revised R7	The Reliability Coordinator has demonstrated the existence of coordination agreements with adjacent Reliability Coordinators but the agreements are not clear or comprehensive.	The Reliability Coordinator has demonstrated the existence of coordination agreements with adjacent Reliability Coordinators but the agreements do not coordinate actions required in the adjacent Reliability Coordinator Area to mitigate SOL or IROL violations in its own Reliability Coordinator area.	The Reliability Coordinator has demonstrated the existence of coordination agreements with adjacent Reliability Coordinators but the agreements do not coordinate actions required in the adjacent Reliability Coordinator Area to mitigate SOL and IROL violations in its own Reliability Coordinator area.	The Reliability Coordinator has failed to demonstrate the existence of any coordination agreements with adjacent Reliability Coordinators.	Corrected typographical errors.
Original R8	Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities followed the Reliability Coordinators directive with a delay not caused by equipment problems but did notify the Reliability Coordinator of the delay.	Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities followed the Reliability Coordinators directive with a delay not caused by equipment problems and did not notify the Reliability Coordinator of the delay.	Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities followed the majority of the Reliability Coordinators directive and did not notify the Reliability Coordinator that it could not fully follow the directive because it would violate	Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities did not follow the Reliability Coordinators directive and did not notify the Reliability Coordinator that it could not follow the directive because it would violate safety, equipment,	

Standard Number IRO-001-1 Reliability Coordination — Responsibilities and Authorities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
			safety, equipment, statutory or regulatory requirements.	statutory or regulatory requirements.	
Revised R8	N/A	The responsible entity could not comply with a directive due to qualified reasons (violation of safety, equipment or regulatory or statutory requirements) and did not immediately inform the Reliability Coordinator.	N/A	The responsible entity did not follow the Reliability Coordinator’s directive.	Revised to simplify by using "responsible entity." Revised to meet FERC guideline 3 and removed the Low and High VSL
Original R9	N/A	N/A	N/A	The Reliability Coordinator did not act in the interests of reliability for the overall Reliability Coordinator Area and the Interconnection before the interests of one or more other entities.	
Revised R9	N/A	N/A	N/A	The Reliability Coordinator did not act in the interests of reliability for the overall Reliability Coordinator Area and the Interconnection before the interests of one or more other entities.	No changes.

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Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1	The Reliability Coordinator has demonstrated communication facilities for both voice and data exist to all appropriate entities and that they are staffed and available but they are less than adequate.	The Reliability Coordinator has failed to demonstrate that is has: 1) Voice communication links with one appropriate entity or 2) Data links with one appropriate entity.	The Reliability Coordinator has failed to demonstrate that is has: 1) Voice communication links with two appropriate entities or 2) Data links with two appropriate entities.	The Reliability Coordinator has failed to demonstrate that is has: 1) Voice communication links with more than two appropriate entities or 2) Data links with more than two appropriate entities or 3) Communication facilities are not staffed or 4) Communication facilities are not ready.	
Revised R1	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient by 5% or less of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient with <u>more than 5% up to (and including) 10%</u> more than 5% but less than 10% of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient for <u>more than 10% up to (and including) 15%</u> 10-15%, inclusive, of its needed data links for at least one of the appropriate entities within its Reliability Coordinator Area.	The Reliability Coordinator demonstrated that it has adequate voice communication facilities and staff but is deficient for more than 15% of its needed data links for at least one of the appropriate entities with which it interfaces. OR The Reliability Coordinator demonstrated that it has adequate voice and data communications facilities	Revised language to meet FERC guideline 2b, and guideline 3. Adjusted to use the 5, 10, and 15%. <u>Modified % language for consistency between standards.</u>

Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				<p>with all appropriate entities within its Reliability Coordinator Area but failed to have sufficient staff to address a real-time emergency event.</p> <p>OR</p> <p>The Reliability Coordinator failed to demonstrate it has adequate voice communications facilities with appropriate entities within its Reliability Coordinator Area.</p>	
Original R2	The Reliability Coordinator demonstrated that it 1) determined its data requirements and requested that data from its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or Adjacent Reliability Coordinators with a	The Reliability Coordinator demonstrated that it determined the majority but not all of its data requirements necessary to support its reliability coordination functions and requested that data from its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or Adjacent Reliability	The Reliability Coordinator demonstrated that it determined 1) some but less than the majority of its data requirements necessary to support its reliability coordination functions and requested that data from its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or	The Reliability Coordinator failed to demonstrate that it 1) determined its data requirements necessary to support its reliability coordination functions and requested that data from its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or Adjacent Reliability Coordinators or	

Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	material impact on the Bulk Electric System in its Reliability Coordination Area but did not request the data from Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or Adjacent Reliability Coordinators with minimal impact on the Bulk Electric System in its Reliability Coordination Area or 2) determined its data requirements necessary to perform its reliability functions with the exceptions of data that may be needed for administrative purposes such as data reporting.	Coordinators.	Adjacent Reliability Coordinators or 2) all of its data requirements necessary to support its reliability coordination functions but failed to demonstrate that it requested data from two of its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or Adjacent Reliability Coordinators.	2) requested the data from three or more of its Transmission Operators, Balancing Authorities, Transmission Owners, Generation Owners, Generation Operators, and Load-Serving Entities or Adjacent Reliability Coordinators.	
Revised R2	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination	The Reliability Coordinator failed to demonstrate that it determined and requested the data requirements needed to support its reliability coordination	Revised to meet FERC guidelines 2 and 3.

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Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	reliability coordination tasks from One of the applicable entities with which it interfaces.	tasks from Two of the applicable entities with which it interfaces.	tasks from Three of the applicable entities with which it interfaces.	tasks from Four or more of the applicable entities with which it interfaces.	
Original R3	N/A	The Reliability Coordinator or designated Transmission Operator and Balancing Authority has failed to demonstrate it provided or arranged provision for the exchange of data with one of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.	The Reliability Coordinator or designated Transmission Operator and Balancing Authority has failed to demonstrate it provided or arranged provision for the exchange of data with two of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.	The Reliability Coordinator or designated Transmission Operator and Balancing Authority has failed to demonstrate it provided or arranged provision for the exchange of data with three of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.	
Revised R3	<u>The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with 5% or less one of the other Reliability Coordinators or Transmission Operators and Balancing Authorities. N/A</u>	<u>The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 5% up to (and including) 10% two of the other Reliability Coordinators or Transmission Operators and Balancing Authorities. The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with one of the other Reliability</u>	<u>The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 10% up to (and including) 15% three of the other Reliability Coordinators or Transmission Operators and Balancing Authorities. The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with two of the other Reliability</u>	<u>The responsible entity failed to demonstrate it provided or arranged provision for the exchange of data with more than 15% with three four of the other Reliability Coordinators or Transmission Operators and Balancing Authorities.</u>	Modified to align more closely with the requirement. <u>Added Lower VSL.</u> Corrected typographical errors. <u>Adjusted to use the 5, 10, and 15%.</u>

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Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		Coordinators or Transmission Operators and Balancing Authorities.	Coordinators or Transmission Operators and Balancing Authorities.		
Original R4	N/A	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to one of the Transmission Operators and Balancing Authorities in its Reliability Coordinator Area and with neighboring Reliability Coordinators.	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to two or more of the Transmission Operators and Balancing Authorities in its Reliability Coordinator Area and with neighboring Reliability Coordinators.	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to all of the Transmission Operators and Balancing Authorities in its Reliability Coordinator Area and with all neighboring Reliability Coordinators.	
Revised R4	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to <u>5% or less</u> One of the applicable entities with which it interfaces.	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to <u>more than 5% up to (and including) 10%</u> Two of the applicable entities with which it interfaces.	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to <u>more than 10% up to (and including) 15%</u> Three of the applicable entities with which it interfaces.	The Reliability Coordinator has failed to demonstrate multi-directional communication capabilities to <u>with more than 15%</u> Four or more of the applicable entities with which it interfaces.	Revised to make more stringent. <u>Adjusted to use the 5, 10, and 15%.</u>
Original R5	The Reliability Coordinator's monitoring systems provide information in a way that is not easily understood and interpreted by the Reliability Coordinator's	The Reliability Coordinator has failed to demonstrate that is has detailed real-time monitoring capabilities in its Reliability Coordinator Area and sufficient	The Reliability Coordinator has failed to demonstrate that is has detailed real-time monitoring capabilities in its Reliability Coordinator Area and sufficient	The Reliability Coordinator has failed to demonstrate that is has detailed real-time monitoring capabilities in its Reliability Coordinator Area and sufficient	

Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	operating personnel or particular emphasis was not given to alarm management and awareness systems, automated data transfers and synchronized information systems.	monitoring capabilities of its surrounding Reliability Coordinator Areas to ensure that one potential or actual SOL or IROL violation is not identified.	monitoring capabilities of its surrounding Reliability Coordinator Areas to ensure that two or more potential and actual SOL and IROL violations are not identified.	monitoring capabilities of its surrounding Reliability Coordinator Areas to ensure that all potential and actual SOL and IROL violations are identified.	
Revised R5	The Reliability Coordinator's SOL/IROL monitoring systems provide information in a way that is not easily understood and interpreted by the Reliability Coordinator's operating personnel.	The Reliability Coordinator's SOL/IROL monitoring systems did not give particular emphasis to One of the following: <ul style="list-style-type: none"> - alarm management and awareness systems - automated data transfers - synchronized information systems 	The Reliability Coordinator's SOL/IROL monitoring systems did not give particular emphasis to Two of the following: <ul style="list-style-type: none"> - alarm management and awareness systems - automated data transfers - synchronized information systems 	The Reliability Coordinator's SOL/IROL monitoring systems did not give particular emphasis to any of the following: <ul style="list-style-type: none"> - alarm management and awareness systems - automated data transfers - synchronized information systems. <p>OR</p> <p>The Reliability Coordinator's SOL/IROL monitoring systems were not implemented over a highly reliable redundant infrastructure.</p>	Revised to focus VSLs on the capabilities of the equipment (monitoring systems) to monitor for SOLs/IROLs.
Original R6	The Reliability Coordinator failed to monitor:	The Reliability Coordinator failed to monitor: 1) the status, real power	- alarm management and awareness systems	The Reliability Coordinator failed to monitor: 1) the status, real power	

Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	1) the status, real power flow or reactive power flow of Bulk Electric System elements that could result in one SOL violations or 2) or operating reserves for a small portion of the Reliability Authority Area.	flow or reactive power flow of Bulk Electric System elements critical to assessing one IROL or to system resotation, 2) the status, real power flow or reactive power flow of Bulk Electric System elements that could result in multiple SOL violations, or 3) operating reserves.		flow or reactive power flow of Bulk Electric System elements critical to assessing all IROLs and to system resotation, or 2) the status, real power flow or reactive power flow of Bulk Electric System elements critical to assessing all SOL violations and operating reserves.	
Revised R6	N/A	N/A	The Reliability Coordinator monitored BES elements (generators, transmission lines, buses, transformers, breakers, etc.) but failed to effectively monitor the status, real power flow, reactive power flow or operating reserves for a BES facility that is associated with a potential SOL/IROL.	The Reliability Coordinator failed to monitor the BES elements.	Revised to focus on the information required to be monitored, and focus on FERC guideline 3. Modified for clarity.
Original R7	The Reliability Coordinator failed to demonstrate that it has: 1) analysis tools capable of assessing all pre-	The Reliability Coordinator failed to demonstrate that it has: 1) analysis tools capable of assessing the majority of	- synchronized information systems	The Reliability Coordinator failed to demonstrate that it has: 1) analysis tools capable of assessing any pre-	

Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	contingency flows, 2) analysis tools capable of assessing all post-contingency flows, or 3) all necessary wide-area overview displays exist.	pre-contingency flows, 2) analysis tools capable of assessing the majority of post-contingency flows, or 3) the majority of necessary wide-area overview displays exist.		contingency flows, 2) analysis tools capable of assessing any post-contingency flows, or 3) any necessary wide-area overview displays exist.	
Revised R7	N/A	N/A	N/A	<p><u>The Reliability Coordinator failed to demonstrate that it has adequate analysis tools such as:</u></p> <ul style="list-style-type: none"> • <u>State estimation</u> • <u>Pre-contingency analysis capability (thermal, stability, and voltage);</u> • <u>Post-contingency analysis capability (thermal, stability, and voltage),</u> • <u>Wide-area overview displays.</u> <p>The Reliability Coordinator failed to demonstrate that it has adequate analysis tools.</p>	<p>Revised to focus on the existence of adequate analysis tools in accordance with FERC guideline 3.</p> <p><u>Added list to Severe for greater clarity.</u></p>

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R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R8	The Reliability Coordinator failed to demonstrate that: 1) it or a delegated entity monitored SOLs when the main monitoring system was unavailable or 2) it has provisions to monitor SOLs when the main monitoring system is not available.	The Reliability Coordinator failed to demonstrate that: 1) it or a delegated entity monitored one IROL when the main monitoring system was unavailable or 2) it has provisions to monitor one IROL when the main monitoring system is not available.	The Reliability Coordinator failed to demonstrate that: 1) it or a delegated entity monitored two or more IROLs when the main monitoring system was unavailable, 2) it or a delegated entity monitored SOLs and one IROL when the main monitoring system was unavailable 3) it has provisions to monitor two or or more IROLs when the main monitoring system is not available, or 4) it has provisions to monitor SOLs and one IROL when the main monitoring system was unavailable.	The Reliability Coordinator failed to demonstrate that it continuously monitored its Reliability Authority Area.	
Revised R8	N/A	The Reliability Coordinator demonstrated has provisions for back-up facilities, but it failed to continuously monitor SOL/IROL conditions if when the main monitoring system is was unavailable .	N/A	The Reliability Coordinator failed to demonstrate provisions for back-up facilities AND The Reliability Coordinator	Revised to align with FERC guideline 3. Modified language for clarity.

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Standard Number IRO-002-1 Reliability Coordination — Facilities					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				failed to that it can continuously monitor SOL/IROL conditions if when the main monitoring system is <u>was</u> unavailable.	
Original R9	Reliability Coordinator has approval rights for planned maintenance outages of analysis tools but does not have approval rights for work on analysis tools that creates a greater risk of an unplanned outage of the tools.	Reliability Coordinator has approval rights for planned maintenance but does not have plans to mitigate the effects of outages of the analysis tools.	Reliability Coordinator has approval rights for planned maintenance but does not have plans to mitigate the effects of outages of the analysis tools and does not have approval rights for work on analysis tools that creates a greater risk of an unplanned outage of the tools.	Reliability Coordinator approval is not required for planned maintenance.	
Revised R9	N/A	The Reliability Coordinator has approval rights for planned maintenance outages of its analysis tools, but there is no procedure to mitigate the effects of these outages.	N/A	Reliability Coordinator approval was not obtained for planned maintenance of its analysis tools.	Revised to clarify in accordance with FERC guideline 3

Standard Number IRO-003-2 Reliability Coordination — Wide-Area View					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1	N/A	N/A	The Reliability Coordinator failed to monitor all Bulk Electric System facilities, which may include sub-transmission information, within its Reliability Coordinator Area and adjacent Reliability Coordinator Areas, as necessary to ensure that, at any time, regardless of prior planned or unplanned events, the Reliability Coordinator is able to determine any potential System Operating Limit and Interconnection Reliability Operating Limit violations within its Reliability Coordinator Area.	The Reliability Coordinator failed to monitor Bulk Electric System facilities, which may include sub-transmission information, within adjacent Reliability Coordinator Areas, as necessary to ensure that, at any time, regardless of prior planned or unplanned events, the Reliability Coordinator is able to determine any potential System Operating Limit and Interconnection Reliability Operating Limit violations within its Reliability Coordinator Area.	
Revised R1	N/A	N/A	The Reliability Coordinator failed to effectively demonstrate it monitored the applicable facilities within its own Reliability Coordinator Area. OR The Reliability Coordinator	The Reliability Coordinator failed to effectively demonstrate it monitored the applicable facilities within its own Reliability Coordinator Area. AND The Reliability Coordinator	Revised to clarify in accordance with FERC guideline 3. <u>Replaced “effective” with “demonstrate” for consistency with the language in the requirement.</u>

Standard Number IRO-003-2 Reliability Coordination — Wide-Area View					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
			failed to effectively demonstrate it monitored the applicable facilities within adjacent Reliability Coordinator Area(s)	failed to effectively demonstrate it monitored the applicable facilities within adjacent Reliability Coordinator Area(s)	
Original R2.	N/A	N/A	The Reliability Coordinator failed to know either the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation or the status of any facilities that may be required to assist area restoration objectives.	The Reliability Coordinator failed to know the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation and the status of any facilities that may be required to assist area restoration objectives.	
Revised R2.	N/A	N/A	The Reliability Coordinator failed to know either the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation or the status of any facilities that may be required to assist area restoration objectives.	The Reliability Coordinator failed to know the current status of all critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation and the status of any facilities that may be required to assist area restoration objectives.	No changes.

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for one (1) day during a calendar month.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for two (2) to three (3) days during a calendar month.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for four (4) to five (5) days during a calendar month.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for more than five (5) days during a calendar month.	

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R1.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for one (1) day during a calendar month.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for two (2) to three (3) days during a calendar month.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for four (4) to five (5) days during a calendar month.	The Reliability Coordinator failed to conduct next-day reliability analyses or contingency analysis for its Reliability Coordinator Area for more than five (5) days during a calendar month.	No changes.
Original R2.	N/A	N/A	N/A	The Reliability Coordinator failed to monitor parallel flows to ensure one Reliability Coordinator Area does not place an unacceptable or undue Burden on an adjacent Reliability Coordinator Area.	
Revised R2.	N/A	N/A	N/A	The Reliability Coordinator failed to monitor parallel flows to ensure one Reliability Coordinator Area did not place an unacceptable or undue Burden on an adjacent Reliability Coordinator Area.	Corrected grammar

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R3.	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for one (1) day during a calendar month.	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for two (2) to three (3) days during a calendar month.	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for four (4) to five (5) days during a calendar month.	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs for more than five (5) days during a calendar month.	
Revised R3.	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions,	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions,	The Reliability Coordinator, in conjunction with its Transmission Operators and Balancing Authorities, failed to develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions,	No changes.

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROs for one (1) day during a calendar month.	or reducing load to return transmission loading to within acceptable SOLs or IROs for two (2) to three (3) days during a calendar month.	or reducing load to return transmission loading to within acceptable SOLs or IROs for four (4) to five (5) days during a calendar month.	or reducing load to return transmission loading to within acceptable SOLs or IROs for more than five (5) days during a calendar month.	
Original R4.	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for one (1) day during a calendar month.	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for two (2) to three (3) days during a calendar month.	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for four (4) to five (5) days during a calendar month.	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for more than five (5) days during a calendar month.	
Revised R4.	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and	The responsible entity in the Reliability Coordinator Area provided the information required for system studies, such as critical facility status, Load, generation, operating reserve projections, and	No changes.

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	reserve projections, and known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for one (1) day during a calendar month.	known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for two (2) to three (3) days during a calendar month.	known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for four (4) to five (5) days during a calendar month.	known Interchange Transactions, but said information was provided after the required time as stated in IRO-004-1 R4 for more than five (5) days during a calendar month.	
Original R5.	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area for one (1) day during a calendar month.	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area for two (2) to three (3) days during a calendar month.	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area for four (4) to five (5) days during a calendar month.	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area for more than five (5) days during a calendar month.	
Revised R5.	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing	The Reliability Coordinator failed to share the results of its system studies, when conditions warranted or was requested, with other Reliability Coordinators and with Transmission Operators, Balancing	No changes.

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	Operators, Balancing Authorities, and Transmission Service Providers within its Reliability Coordinator Area for one (1) day during a calendar month.	Authorities, and Transmission Service Providers within its Reliability Coordinator Area for two (2) to three (3) days during a calendar month.	Authorities, and Transmission Service Providers within its Reliability Coordinator Area for four (4) to five (5) days during a calendar month.	Authorities, and Transmission Service Providers within its Reliability Coordinator Area for more than five (5) days during a calendar month.	
Original R6.	The Reliability Coordinator failed to direct action to address a potential SOL or IROL violation on one (1) occasion during a calendar month.	The Reliability Coordinator failed to direct action to address a potential SOL or IROL violation on two (2) to three (3) occasions during a calendar month.	The Reliability Coordinator failed to direct action to address a potential SOL or IROL violation on four (4) to five (5) occasions during a calendar month.	The Reliability Coordinator failed to direct action to address a potential SOL or IROL violation on more than five (5) occasions during a calendar month.	
Revised R6.	N/A	N/A	N/A	The Reliability Coordinator failed to direct action to address a potential SOL or IROL violation when the results of its studies indicated a potential SOL or IROL violation.	Revised to take out number of occasions per FERC guideline 4.
Original R7.	The responsible entity failed to comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events on one (1) occasion	The responsible entity failed to comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events on two (2) to three (3)	The responsible entity failed to comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events on four (4) to five (5)	The responsible entity failed to comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events on more than five (5)	

Standard Number IRO-004-1 Reliability Coordination — Operations Planning					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	during a calendar month.	occasions during a calendar month.	occasions during a calendar month.	occasions during a calendar month.	
Revised R7.	N/A	N/A	N/A	The responsible entity failed to comply with the directive from its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events.	Revised to take out number of occasions per FERC guideline 4.

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.	The Reliability Coordinator failed to monitor one (1) of the elements listed in IRO-005-1 R1.1 through R1.10.	The Reliability Coordinator failed to monitor two (2) of the elements listed in IRO-005-1 R1.1 through R1.10.	The Reliability Coordinator failed to monitor three (3) of the elements listed in IRO-005-1 R1.1 through R1.10.	The Reliability Coordinator failed to monitor more than three (3) of the elements listed in IRO-005-1 R1.1 through R1.10.	
Revised R1.	The Reliability Coordinator failed to monitor one (1) of the elements listed in IRO-005-1 R1.1 through R1.10.	The Reliability Coordinator failed to monitor two (2) of the elements listed in IRO-005-1 R1.1 through R1.10.	The Reliability Coordinator failed to monitor three (3) of the elements listed in IRO-005-1 R1.1 through R1.10.	The Reliability Coordinator failed to monitor more than three (3) of the elements listed in IRO-005-1 R1.1 through R1.10.	No changes.
Original R1.1.	The Reliability Coordinator failed to monitor the current status of Bulk Electric System elements (transmission or generation including critical auxiliaries such as Automatic Voltage Regulators and Special Protection Systems) and system loading.	N/A	N/A	N/A	
Revised R1.1.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.2.	The Reliability Coordinator failed to monitor current pre-contingency element	N/A	N/A	N/A	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan’s viability and scope.				
Revised R1.2.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.3.	The Reliability Coordinator failed to monitor current post-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate SOL or IROL violations, including the plan’s viability and scope.	N/A	N/A	N/A	
Revised R1.3.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.4.	The Reliability Coordinator failed to monitor system real and reactive reserves (actual versus required).	N/A	N/A	N/A	

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R1.4.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.5.	The Reliability Coordinator failed to monitor capacity and energy adequacy conditions.	N/A	N/A	N/A	
Revised R1.5.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.6.	The Reliability Coordinator failed to monitor current ACE for all its Balancing Authorities.	N/A	N/A	N/A	
Revised R1.6.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.7.	The Reliability Coordinator failed to monitor current local or Transmission Loading Relief procedures in effect.	N/A	N/A	N/A	
Revised R1.7.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.8.	The Reliability Coordinator failed to monitor planned	N/A	N/A	N/A	

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	generation dispatches.				
Revised R1.8.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.9.	The Reliability Coordinator failed to monitor planned transmission or generation outages.	N/A	N/A	N/A	
Revised R1.9.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.10.	The Reliability Coordinator failed to monitor contingency events.	N/A	N/A	N/A	
Revised R1.10.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R2.	N/A	N/A	The Reliability Coordinator was aware of all Interchange Transactions that wheeled through, sourced, or sunk in its Reliability Coordinator Area, but failed to make that Interchange Transaction information available to all Reliability	The Reliability Coordinator failed to be aware of all Interchange Transactions that wheeled through, sourced, or sunk in its Reliability Coordinator Area, and failed to make that Interchange Transaction information available to all Reliability	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
			Coordinators in the Interconnection.	Coordinators in the Interconnection.	
Revised R2.	N/A	N/A	The Reliability Coordinator was aware of all Interchange Transactions that wheeled through, sourced, or sunk in its Reliability Coordinator Area, but failed to make that Interchange Transaction information available to all Reliability Coordinators in the Interconnection.	The Reliability Coordinator failed to be aware of all Interchange Transactions that wheeled through, sourced, or sunk in its Reliability Coordinator Area, and failed to make that Interchange Transaction information available to all Reliability Coordinators in the Interconnection.	No changes.
Original R3.	N/A	The Reliability Coordinator worked with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and initiated control actions or emergency procedures to relieve the violation within 30 minutes, but failed to ensure all resources,	The Reliability Coordinator worked with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and ensured all resources, including load shedding, were available to address a potential or actual IROL violation, but failed to	The Reliability Coordinator failed to work with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and failed to initiate control actions or emergency procedures to relieve the violation within 30 minutes.	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		including load shedding, were available to address a potential or actual IROL violation.	initiate control actions or emergency procedures to relieve the violation within 30 minutes.		
Revised R3.	N/A	The Reliability Coordinator worked with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and initiated control actions or emergency procedures to relieve the violation within 30 minutes, but failed to ensure all resources, including load shedding, were available to address a potential or actual IROL violation.	The Reliability Coordinator worked with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and ensured all resources, including load shedding, were available to address a potential or actual IROL violation, but failed to initiate control actions or emergency procedures to relieve the violation within 30 minutes.	The Reliability Coordinator failed to work with its Transmission Operators and Balancing Authorities, as portions of the transmission system approached or exceeded SOLs or IROLs, to evaluate and assess any additional Interchange Schedules that would violate those limits and failed to initiate control actions or emergency procedures to relieve the violation within 30 minutes.	No changes.
Original R4.	N/A	The Reliability Coordinator failed to direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing	The Reliability Coordinator failed to issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities.	The Reliability Coordinator failed to monitor its Balancing Authorities' parameters to ensure that the required amount of operating reserves was provided and available as	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		Authorities.		required to meet the Control Performance Standard and Disturbance Control Standard requirements.	
Revised R4.	N/A	The Reliability Coordinator failed to direct the Balancing Authorities in the Reliability Coordinator Area to arrange for assistance from neighboring Balancing Authorities.	The Reliability Coordinator failed to issue Energy Emergency Alerts as needed and at the request of its Balancing Authorities and Load-Serving Entities.	The Reliability Coordinator failed to monitor its Balancing Authorities' parameters to ensure that the required amount of operating reserves was provided and available as required to meet the Control Performance Standard and Disturbance Control Standard requirements.	No changes.
Original R5.	N/A	N/A	The Reliability Coordinator identified the cause of a potential or actual SOL or IROL violation, but failed to initiate a control action or emergency procedure to relieve the potential or actual IROL violation within 30 minutes.	The Reliability Coordinator failed to identify the cause of a potential or actual SOL or IROL violation and failed to initiate a control action or emergency procedure to relieve the potential or actual IROL violation.	
Revised R5.	N/A	N/A	The Reliability Coordinator identified the cause of a potential or actual SOL or IROL violation, but failed	The Reliability Coordinator failed to identify the cause of a potential or actual SOL or IROL violation and	No changes.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
			to initiate a control action or emergency procedure to relieve the potential or actual IROL violation within 30 minutes.	failed to initiate a control action or emergency procedure to relieve the potential or actual IROL violation.	
Original R6.	N/A	N/A	The Reliability Coordinator ensured its Transmission Operators and Balancing Authorities were aware of Geo-Magnetic Disturbance (GMD) forecast information, but failed to assist, when needed, in the development of any required response plans.	The Reliability Coordinator failed to ensure its Transmission Operators and Balancing Authorities were aware of Geo-Magnetic Disturbance (GMD) forecast information.	
Revised R6.	N/A	N/A	The Reliability Coordinator ensured its Transmission Operators and Balancing Authorities were aware of Geo-Magnetic Disturbance (GMD) forecast information, but failed to assist, when needed, in the development of any required response plans.	The Reliability Coordinator failed to ensure its Transmission Operators and Balancing Authorities were aware of Geo-Magnetic Disturbance (GMD) forecast information.	No changes.
Original R7.	N/A	N/A	N/A	The Reliability Coordinator failed to disseminate information within its Reliability Coordinator Area, when required.	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R7.	N/A	N/A	N/A	The Reliability Coordinator failed to disseminate information within its Reliability Coordinator Area, when required.	No changes.
Original R8.	N/A	N/A	The Reliability Coordinator monitored system frequency and its Balancing Authorities' performance but failed to direct any necessary rebalancing to return to CPS and DCS compliance.	The Reliability Coordinator failed to monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance or the responsible entity failed to utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.	
Revised R8.	N/A	N/A	The Reliability Coordinator monitored system frequency and its Balancing Authorities' performance but failed to direct any necessary rebalancing to return to CPS and DCS compliance.	The Reliability Coordinator failed to monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. OR The responsible entity failed to utilize all	Modified format for consistency.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.	
Original R9.	N/A	The Reliability Coordinator coordinated with Transmission Operators, Balancing Authorities, and Generator Operators, as needed, to develop action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations but failed to implement said plans, or the Reliability Coordinator coordinated pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in the real-time reliability analysis timeframe but failed to coordinate pending generation and transmission maintenance outages in the next-day reliability analysis timeframe.	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations, or the Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next-day reliability analysis timeframes.	The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations and the Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next-day reliability analysis timeframes.	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R9.	N/A	<p>The Reliability Coordinator coordinated with Transmission Operators, Balancing Authorities, and Generator Operators, as needed, to develop action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations but failed to implement said plans.</p> <p>OR</p> <p>The Reliability Coordinator coordinated pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in the real-time reliability analysis timeframe but failed to coordinate pending generation and transmission maintenance outages in the next-day reliability analysis timeframe.</p>	<p>The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations.</p> <p>OR</p> <p>The Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next-day reliability analysis timeframes.</p>	<p>The Reliability Coordinator failed to coordinate with Transmission Operators, Balancing Authorities, and Generator Operators as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS, or DCS violations.</p> <p>AND</p> <p>The Reliability Coordinator failed to coordinate pending generation and transmission maintenance outages with Transmission Operators, Balancing Authorities, and Generator Operators as needed in both the real-time and next-day reliability analysis timeframes.</p>	Modified format for consistency.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R10.	N/A	N/A	N/A	The Reliability Coordinator failed to assist the Balancing Authorities in its Reliability Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities, when necessary.	
Revised R10.	N/A	N/A	N/A	The Reliability Coordinator failed to assist the Balancing Authorities in its Reliability Coordinator Area in arranging for assistance from neighboring Reliability Coordinator Areas or Balancing Authorities, when necessary.	No changes.
Original R11.	N/A	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange and discussed corrective actions with the appropriate Balancing Authority but failed to	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange but failed to discuss corrective actions with the appropriate Balancing Authority.	The Reliability Coordinator failed to identify sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange.	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		direct the Balancing Authority to comply with CPS and DCS.			
Revised R11.	N/A	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange and discussed corrective actions with the appropriate Balancing Authority but failed to direct the Balancing Authority to comply with CPS and DCS.	The Reliability Coordinator identified sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange but failed to discuss corrective actions with the appropriate Balancing Authority.	The Reliability Coordinator failed to identify sources of large Area Control Errors that were contributing to Frequency Error, Time Error, or Inadvertent Interchange.	No changes.
Original R12.	N/A	N/A	N/A	The Reliability Coordinator failed to be aware of the impact on inter-area flows of an inter-Balancing Authority or inter-Transmission Operator, following the operation of a Special Protection System that is armed (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation), or the Transmission Operator failed to immediately	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.	
Revised R12.	N/A	N/A	N/A	<p>The Reliability Coordinator failed to be aware of the impact on inter-area flows of an inter-Balancing Authority or inter-Transmission Operator, following the operation of a Special Protection System that was armed (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation).</p> <p>OR</p> <p>The Transmission Operator failed to immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential</p>	Modified format for consistency.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				failure to operate as expected.	
Original R13.	N/A	N/A	N/A	The Reliability Coordinator failed to shall ensure that all Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities operated to prevent the likelihood that a disturbance, action, or non-action in its Reliability Coordinator Area could result in a SOL or IROL violation in another area of the Interconnection or the responsible entity failed to operate the Bulk Electric System to the most limiting parameter in instances where there was a difference in derived limits..	
Revised R13.	N/A	N/A	N/A	The Reliability Coordinator failed to ensure that all Transmission Operators, Balancing Authorities, Generator Operators,	Modified format for consistency.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				<p>Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities operated to prevent the likelihood that a disturbance, action, or non-action in its Reliability Coordinator Area could result in a SOL or IROL violation in another area of the Interconnection.</p> <p>OR</p> <p>The responsible entity failed to operate the Bulk Electric System to the most limiting parameter in instances where there was a difference in derived limits.</p>	
Original R14.	N/A	N/A	N/A	<p>The Reliability Coordinator failed to make known to Transmission Service Providers within its Reliability Coordinator Area, SOLs or IROLs within its wide-area view, or the Transmission Service Providers failed to respect these SOLs or IROLs in</p>	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				accordance with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes.	
Revised R14.	N/A	N/A	N/A	<p>The Reliability Coordinator failed to make known to Transmission Service Providers within its Reliability Coordinator Area, SOLs or IROLs within its wide-area view.</p> <p>OR</p> <p>The Transmission Service Providers failed to respect these SOLs or IROLs in accordance with filed tariffs and regional Total Transfer Calculation and Available Transfer Calculation processes.</p>	Modified format for consistency.
Original R15.	N/A	The Reliability Coordinator failed to notify all impacted Transmission Operators, Balancing Authorities, when the transmission problem had been	N/A	The Reliability Coordinator who foresaw a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area failed to	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		mitigated.		issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area, or the receiving Reliability Coordinator failed to disseminate this information to its impacted Transmission Operators and Balancing Authorities.	
Revised R15.	N/A	The Reliability Coordinator failed to notify all impacted Transmission Operators and Balancing Authorities, when the transmission problem had been mitigated.	N/A	The Reliability Coordinator who foresaw a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its Reliability Coordinator Area failed to issue an alert to all impacted Transmission Operators and Balancing Authorities in its Reliability Coordinator Area. OR The receiving Reliability Coordinator failed to disseminate this information to its impacted	Corrected typographical error and modified format for consistency.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				Transmission Operators and Balancing Authorities.	
Original R16.	N/A	N/A	The Reliability Coordinator confirmed the reliability assessment results and determine the effects within its own and adjacent Reliability Coordinator Areas and discussed options to mitigate potential or actual SOL or IROL violations, but failed to take actions as necessary to always act in the best interests of the Interconnection at all times.	The Reliability Coordinator failed to confirm reliability assessment results and determine the effects within its own and adjacent Reliability Coordinator Areas, or failed to discuss options to mitigate potential or actual SOL or IROL violations and take actions as necessary to always act in the best interests of the Interconnection at all times.	
Revised R16.	N/A	N/A	The Reliability Coordinator confirmed the reliability assessment results and determined the effects within its own and adjacent Reliability Coordinator Areas and discussed options to mitigate potential or actual SOL or IROL violations, but failed to take actions as necessary to always act in the best interests of the Interconnection at all times.	The Reliability Coordinator failed to confirm reliability assessment results and determine the effects within its own and adjacent Reliability Coordinator Areas. OR The Reliability Coordinator failed to discuss options to mitigate potential or actual	Corrected typographical error and modified format for consistency.

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				SOL or IROL violations and take actions as necessary to always act in the best interests of the Interconnection at all times.	
Original R17.	N/A	N/A	N/A	The Reliability Coordinator either failed to evaluate the local and wide-area impacts of an IROL or SOL that was exceeded, in either real-time or post-contingency, or the Reliability Coordinator evaluated the local and wide-area impacts of an IROL or SOL that was exceeded, both real-time and post-contingency, and determined that the actions being taken were not appropriate and sufficient to return the system to within IROL in thirty (30) minutes, but failed to direct the Transmission Operator, Balancing Authority, Generator Operator, or Load-Serving Entity to return the system to within IROL or SOL.	

Standard Number IRO-005-1 Reliability Coordination — Current Day Operations					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R17.	N/A	N/A	N/A	<p>The Reliability Coordinator either failed to evaluate the local and wide-area impacts of an IROL or SOL that was exceeded, in either real-time or post-contingency.</p> <p>OR</p> <p>The Reliability Coordinator evaluated the local and wide-area impacts of an IROL or SOL that was exceeded, both real-time and post-contingency, and determined that the actions being taken were not appropriate and sufficient to return the system to within IROL in thirty (30) minutes, but failed to direct the Transmission Operator, Balancing Authority, Generator Operator, or Load-Serving Entity to return the system to within IROL or SOL.</p>	Modified format for consistency.

Standard Number IRO-006-3 Reliability Coordination — Transmission Loading Relief					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.	N/A	N/A	N/A	The Reliability Coordinator failed to take appropriate actions in accordance with established policies, procedures, authority, and expectations to relieve transmission loading.	
Revised R1.	N/A	N/A	N/A	The Reliability Coordinator failed to take appropriate actions in accordance with established policies, procedures, authority, and expectations to relieve transmission loading.	No changes.
Original R2.	N/A	N/A	N/A	The Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its Reliability Coordinator Area failed to take actions based on either a “local” (Regional, Interregional, or subregional) transmission loading relief procedure or an Interconnection-wide procedure.	
Revised R2.	N/A	N/A	N/A	The Reliability Coordinator experiencing a potential or actual SOL or IROL violation within its	Revised to better align with language from the requirement.

Standard Number IRO-006-3 Reliability Coordination — Transmission Loading Relief					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				Reliability Coordinator Area failed to select from either a “local” (Regional, Interregional, or subregional) transmission loading relief procedure or an Interconnection-wide procedure.	
Original R2.1.	N/A	N/A	N/A	N/A	
Revised R2.1.	N/A	N/A	N/A	N/A	No changes.
Original R2.2.	N/A	N/A	N/A	N/A	
Revised R2.2.	N/A	N/A	N/A	N/A	No changes.
Original R2.3.	N/A	N/A	N/A	N/A	
Revised R2.3.	N/A	N/A	N/A	N/A	No changes.
Original R3.	N/A	N/A	N/A	The Reliability Coordinator used a local transmission loading relief or congestion management procedure when the Transmission Operator experiencing the	

Standard Number IRO-006-3 Reliability Coordination — Transmission Loading Relief					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				potential or actual SOL or IROL violation was not a party to said procedures.	
Revised R3.	N/A	N/A	N/A	The Reliability Coordinator used a local transmission loading relief or congestion management procedure when the Transmission Operator experiencing the potential or actual SOL or IROL violation was not a party to said procedure.	Corrected typographical error.
Original R4.	N/A	N/A	N/A	A Reliability Coordinator implementing a local transmission loading relief or congestion management procedure simultaneously with an Interconnection-wide procedure failed to follow the curtailments as directed by the Interconnection-wide procedure, or the Reliability Coordinator used a local procedure as a substitute for curtailments as directed by an Interconnection-wide procedure without having said procedure approved for use by the NERC	

Standard Number IRO-006-3 Reliability Coordination — Transmission Loading Relief					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				Operating Committee..	
Revised R4.			A Reliability Coordinator used a local procedure as a substitute for curtailments as directed by an Interconnection-wide procedure without having said procedure approved for use by the NERC Operating Committee.	A Reliability Coordinator implemented a local transmission loading relief or congestion management procedure simultaneously with an Interconnection-wide procedure failed to follow the curtailments as directed by the Interconnection-wide procedure.	Created High VSL.
Original R5.	N/A	N/A	N/A	The Reliability Coordinator failed to comply with the provisions of an Interconnection-wide procedure when the procedure was implemented.	
Revised R5.	N/A	N/A	N/A	The Reliability Coordinator failed to comply with the provisions of an Interconnection-wide procedure when the procedure was implemented.	No changes.

Standard Number IRO-006-3 Reliability Coordination — Transmission Loading Relief					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R6.	N/A	N/A	The responsible entity failed to comply with one of the interchange scheduling standards INT-001 through INT-004, during the implementation of relief procedures, up to the point that emergency action is necessary,	The responsible entity failed to comply with more than one of the interchange scheduling standards INT-001 through INT-004, during the implementation of relief procedures, up to the point that emergency action is necessary,	
Revised R6.	The responsible entity failed to comply with 5% or less of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	The responsible entity failed to comply with <u>more than 5% up to (and including) 10%</u> more than 5% but 10% or less of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	The responsible entity failed to comply with <u>more than 10% up to (and including) 15%</u> more than 10% but 15% or less of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	The responsible entity failed to comply with more than 15% of the requirements in INT-001 through INT-004 during the implementation of the relief procedures up to the point that emergency action was necessary.	Changed to % format and added Lower and Moderate VSLs. <u>Modified % language for consistency between standards.</u>

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.	N/A	N/A	The Reliability Coordinator has Operating Procedures, Processes, or Plans in place for activities that require notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability, but failed to address Scenarios that affect other Reliability Coordinator Areas.	The Reliability Coordinator failed to have Operating Procedures, Processes, or Plans in place for activities that require notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability.	
Revised R1.	N/A	N/A	The Reliability Coordinator has Operating Procedures, Processes, or Plans in place for activities that require notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability, but failed to address Scenarios that affect other Reliability Coordinator Areas.	The Reliability Coordinator failed to have Operating Procedures, Processes, or Plans in place for activities that require notification, exchange of information or coordination of actions with one or more other Reliability Coordinators to support Interconnection reliability.	No changes.
IRO-014-1	The Reliability Coordinator failed to	The Reliability Coordinator failed to include two of the	The Reliability Coordinator failed to include more than	N/A	

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.1.	include one of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in there Operating Procedures, Processes, or Plans.	elements listed in IRO-014-1 R1.1.1 through R1.1.6 in there Operating Procedures, Processes, or Plans.	two of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in there Operating Procedures, Processes, or Plans.		
Revised R1.1.	N/A	The Reliability Coordinator failed to include one of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in its Operating Procedures, Processes, or Plans.	The Reliability Coordinator failed to include two of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in its Operating Procedures, Processes, or Plans.	The Reliability Coordinator failed to include more than two of the elements listed in IRO-014-1 R1.1.1 through R1.1.6 in its Operating Procedures, Processes, or Plans.	Moved Low, Moderate, and High to Moderate, High, and Severe.
Original R1.1.1.	The Reliability Coordinator failed to address communications and notifications, including the conditions under which one Reliability Coordinator notifies other Reliability Coordinators; the process to follow in making those notifications; and the data and information to be exchanged with other Reliability Coordinators in its Operating Procedure, Process or Plan.	N/A	N/A	N/A	

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R1.1.1.	N/A	N/A	N/A	N/A	Rolled up into R1.1.
IRO-014-1 Original R1.1.2.	The Reliability Coordinator failed to address energy and capacity shortages in its Operating Procedure, Process or Plan.	N/A	N/A	N/A	
Revised R1.1.2.	N/A	N/A	N/A	N/A	Rolled up into R1.1.
Original R1.1.3.	The Reliability Coordinator failed to address planned or unplanned outage information in its Operating Procedure, Process or Plan.	N/A	N/A	N/A	
Revised R1.1.3.	N/A	N/A	N/A	N/A	Rolled up into R1.1.
Original R1.1.4.	The Reliability Coordinator failed to address voltage control, including the coordination of reactive resources for voltage control in its Operating Procedure, Process or Plan.	N/A	N/A	N/A	

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R1.1.4.	N/A	N/A	N/A	N/A	Rolled up into R1.1.
IRO-014-1 Original R1.1.5.	The Reliability Coordinator failed to address the coordination of information exchange to support reliability assessments in its Operating Procedure, Process or Plan.	N/A	N/A	N/A	
Revised R1.1.5.	N/A	N/A	N/A	N/A	Rolled up into R1.1.
Original R1.1.6.	The Reliability Coordinator failed to address authority to act to prevent and mitigate instances of causing Adverse Reliability Impacts to other Reliability Coordinator Areas in its Operating Procedure, Process or Plan.	N/A	N/A	N/A	
Revised R1.1.6.	N/A	N/A	N/A	N/A	Rolled up into R1.1.
Original R2.	N/A	N/A	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan	

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
				failed to comply with either IRO-014-1 R2.1 or R2.2.	
Revised R2.	<p>The Reliability Coordinator’s Operating Procedure, Process, or Plan was not agreed to by all the Reliability Coordinators required to take the indicated action(s). (R2.1)</p> <p>OR</p> <p>The Reliability Coordinator’s Operating Procedure, Process, or Plan was not distributed to all Reliability Coordinators that are required to take the indicated action(s). (R2.2)</p>	N/A	N/A	The Reliability Coordinator’s Operating Procedure, Process, or Plan failed to comply with either IRO-014-1 R2.1 or R2.2.	Added a Lower VSL and rolled-up subrequirements.
Original R2.1.	The Reliability Coordinator’s Operating Procedure, Process, or Plan was not agreed to by all the Reliability Coordinators required to take the indicated action(s).	N/A	N/A	N/A	

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Revised R2.1.	N/A	N/A	N/A	N/A	Rolled up into R2.
Original R2.2.	The Reliability Coordinator's Operating Procedure, Process, or Plan was not distributed to all Reliability Coordinators that are required to take the indicated action(s).	N/A	N/A	N/A	
Revised R2.2.	N/A	N/A	N/A	N/A	Rolled up into R2.
Original R3.	N/A	N/A	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to comply with either IRO-014-1 R3.1 or R3.2.	
Revised R3.	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to reference the associated Reliability Coordinator-to-Reliability Coordinator Operating Procedure, Process, or Plan. (R3.1) OR	N/A	N/A	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to comply with either IRO-014-1 R3.1 or R3.2.	Added a Lower VSL and rolled-up subrequirements.

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to include the agreed-upon actions from the associated Reliability Coordinator-to-Reliability Coordinator Operating Procedure, Process, or Plan. (R3.2)				
Original R3.1.	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to reference the associated Reliability Coordinator-to-Reliability Coordinator Operating Procedure, Process, or Plan.	N/A	N/A	N/A	
Revised R3.1.	N/A	N/A	N/A	N/A	Rolled up into R3.
Original R3.2.	The Reliability Coordinator's Operating Procedure, Process, or Plan failed to include the agreed-upon actions from the associated Reliability Coordinator-to-Reliability Coordinator Operating	N/A	N/A	N/A	

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	Procedure, Process, or Plan.				
Revised R3.2.	N/A	N/A	N/A	N/A	Rolled up into R3
Original R4.	N/A	N/A	N/A	The Reliability Coordinator developed an Operating Procedure, Process, or Plan in accordance with IRO-014 Requirement 1 and Requirement 3, but failed to comply with one of the elements listed in IRO-014-1 R4.1 through R4.3.	
Revised R4.	N/A	The Operating Procedures, Processes and Plans did not include one of the elements listed in IRO-014-1 R4.1 through R4.3.	The Operating Procedures, Processes and Plans did not include two of the elements listed in IRO-014-1 R4.1 through R4.3.	The Operating Procedures, Processes and Plans did not include any of the elements listed in IRO-014-1 R4.1 through R4.3.	Rolled-up subrequirements.
Original R4.1.	The Reliability Operator failed to include the version control number or date in its Operating Procedure, Process, or Plan.	N/A	N/A	N/A	
Revised R4.1.	N/A	N/A	N/A	N/A	Rolled up into R4.

Proposed Violation Severity Levels for the IRO Series of Standards

Standard Number IRO-014-1 Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R4.2.	The Reliability Operator failed to include a distribution list in its Operating Procedure, Process, or Plan.	N/A	N/A	N/A	
Revised R4.2.	N/A	N/A	N/A	N/A	Rolled up into R4
Original R4.3.	The Reliability Operator failed to review, at least once every three years, and update if needed, its Operating Procedure, Process, or Plan.	N/A	N/A	N/A	
Revised R4.3.	N/A	N/A	N/A	N/A	Rolled up into R4

Standard Number IRO-015-1 Notifications and Information Exchange Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.	N/A	The Reliability Coordinator failed to follow its Operating Procedures, Processes, or Plans for making notifications and exchanging reliability-related information with other Reliability Coordinators but no adverse reliability impacts resulted from the incident.	N/A	The Reliability Coordinator failed to follow its Operating Procedures, Processes, or Plans for making notifications and exchanging reliability-related information with other Reliability Coordinators and adverse reliability impacts resulted from the incident..	
Revised R1.	<p>The Reliability Coordinator failed to notify 5% or less of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.</p> <p>OR</p> <p>The Reliability Coordinator failed to follow its Operating Procedures, Processes, or Plans for making notifications and exchanging reliability-</p>	<p>The Reliability Coordinator failed to notify <u>more than 5% up to (and including) 10%</u> more than 5% but 10% or less of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.</p>	<p>The Reliability Coordinator failed to notify <u>more than 10% up to (and including) 15%</u> more than 10% but 15% or less of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.</p>	<p>The Reliability Coordinator failed to notify more than 15% of the other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact them as per R1.1.</p>	<p>Rolled up subrequirements and used the % format.</p> <p><u>Modified % language for consistency between standards.</u></p>

Standard Number IRO-015-1 Notifications and Information Exchange Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	related information with other Reliability Coordinators.				
Original R1.1.	N/A	The Reliability Coordinator failed to make notifications to other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact other Reliability Coordinator Areas but no adverse reliability impacts resulted from the incident.	N/A	The Reliability Coordinator failed to make notifications to other Reliability Coordinators of conditions in its Reliability Coordinator Area that may impact other Reliability Coordinator Areas and adverse reliability impacts resulted from the incident.	
Revised R1.1.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R2.	The Reliability Coordinator failed to participate in agreed upon conference calls and other communication forums with adjacent Reliability Coordinators.	N/A	N/A	N/A	
Revised R2.	The Reliability Coordinator failed to participate in 5% or less of agreed upon conference calls and other communication forums with adjacent Reliability	The Reliability Coordinator failed to participate in <u>more than 5% up to (and including) 10%</u> more than 5% but 10% or less of agreed upon conference calls and other	The Reliability Coordinator failed to participate in <u>more than 10% up to (and including) 15%</u> more than 10% but 15% or less of agreed upon conference calls and other	The Reliability Coordinator failed to participate in more than 15% of agreed upon conference calls and other communication forums with adjacent Reliability Coordinators as per R2.1.	Rolled up and changed to the % format. <u>Modified % language for consistency between standards.</u>

Standard Number IRO-015-1 Notifications and Information Exchange Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	Coordinators as per R2.1.	communication forums with adjacent Reliability Coordinators as per R2.1.	communication forums with adjacent Reliability Coordinators as per R2.1.		
Original R2.1.	The Reliability Operator failed to participate in the assessment of the need and frequency of conference calls with other Reliability Operators.	N/A	N/A	N/A	
Revised R2.1.	N/A	N/A	N/A	N/A	Rolled up into R2.
Original R3.	N/A	N/A	The Reliability Coordinator failed to provide reliability-related information as requested by other Reliability Coordinators.	N/A	
Revised R3.				The Reliability Coordinator failed to provide reliability-related information as requested by other Reliability Coordinators.	Binary - moved from High to Severe.

Standard Number IRO-016-1 Coordination of Real-time Activities Between Reliability Coordinators					
R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
Original R1.	The Reliability Coordinator that identified a potential, expected, or actual problem that required the actions of one or more other Reliability Coordinators, contacted the other Reliability Coordinator(s) to confirm that there was a problem, discussed options and decided upon a solution to prevent or resolve the identified problem, but failed to have evidence that it coordinated with other Reliability Coordinators.	N/A	N/A	The Reliability Coordinator that identified a potential, expected, or actual problem that required the actions of one or more other Reliability Coordinators failed to contact the other Reliability Coordinator(s) to confirm that there was a problem, discuss options and decide upon a solution to prevent or resolve the identified problem.	
Revised R1.	The Reliability Coordinator failed to contact other Reliability Coordinators to confirm that there was a problem when it identified a potential or expected problem that required the actions of those other Reliability Coordinators as per R1.1 through R1.3.	The Reliability Coordinator failed to discuss options and decide upon a solution to prevent or resolve the identified expected or potential problem when it contacted other Reliability Coordinators to confirm that there was a problem when it identified a potential or expected problem that required the actions of those other	The Reliability Coordinator failed to contact other Reliability Coordinators to confirm that there was a problem when it identified an actual problem that required the actions of those other Reliability Coordinators as per R1.1 through R1.3.	The Reliability Coordinator failed to discuss options and decide upon a solution to prevent or resolve the identified actual problem when it contacted other Reliability Coordinators to confirm that there was a problem when it identified a potential or expected problem that required the actions of those other Reliability Coordinators as	Rolled up subrequirements.

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R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
		Reliability Coordinators as per R1.1 through R1.3.		per R1.1 through R1.3.	
Original R1.1.	The responsible entity agreed on the problem and the actions to take to prevent or mitigate the system condition, implemented the agreed-upon solution, but failed to notify the involved Reliability Coordinators of the action(s) taken.	N/A	N/A	The responsible entity agreed on the problem and the actions to take to prevent or mitigate the system condition, but failed to implement the agreed-upon solution.	
Revised R1.1.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.2.	The involved Reliability Coordinators could not agree on the problem(s), but a Reliability Coordinator failed to re-evaluate the causes of the disagreement (bad data, status, study results, tools, etc.).	N/A	N/A	N/A	
Revised R1.2.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.2.1.	The Reliability Coordinator failed to re-evaluate the problem prior	N/A	N/A	N/A	

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R#	Lower VSL	Moderate VSL	High VSL	Severe VSL	Explanation of Change
	to taking corrective actions, during periods when time was not an issue.				
Revised R1.2.1.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.2.2.	The Reliability Coordinator failed to operate as though the problem(s) exist(s) until the conflicting system status was resolved, during periods when time was an issue.	N/A	N/A	N/A	
Revised R1.2.2.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R1.3.	The Reliability Coordinator implemented a solution other than the most conservative solution, when agreement on the solution could not be reached.	N/A	N/A	N/A	
Revised R1.3.	N/A	N/A	N/A	N/A	Rolled up into R1.
Original R2.	The Reliability Coordinator failed to document (via operator	N/A	N/A	N/A	

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	logs or other data sources) its actions taken for either the event or for the disagreement on the problem(s) or for both.				
Revised R2.	N/A	N/A	The Reliability Coordinator failed to document (via operator logs or other data sources) its actions taken for the event or for the disagreement on the problem(s).	The Reliability Coordinator failed to document (via operator logs or other data sources) its actions taken for the event and for the disagreement on the problem(s).	Created High and Severe VSLs.