Coordinate Operations Standard FAOs

General Questions

1. What functions have to comply with this standard?

This standard applies only to Reliability Authorities, and focuses solely on those activities that require the cooperation of RAs who are responsible for different RA Areas. RAs are expected to have control over large electrical regions, and by necessity, would have to coordinate actions that, if left uncoordinated, could lead to instability, cascading outages or uncontrolled separation from the interconnection.

2. Why doesn't this apply to the Reliability Coordinator?

These new standards are being written for the functions defined in the Functional Model. The Functional Model doesn't include a Reliability Coordinator, so **NO** standards are being developed for the Reliability Coordinator.

3. Why doesn't this standard include everything that is currently in Policy 9 for Reliability Coordinators?

When the set of 11 SARs was drafted, the Original SAR DT referred to their work as, 'starting with a clean slate.' Rather than looking at each of the existing Operating Policies and deciding how to refine the existing document, the Original SAR DT started by making a list of tasks essential to support reliability, and sorted the tasks into similar categories. While the SAR DT made a check to verify that the critical, reliability-related elements of all Operating Policies would be addressed by one of the proposed 11 SARs, they deliberately refrained from keeping the sort of tasks the same as the sort you find in the existing Operating Policies. As a result, when you look at any one of the existing Operating Policies, and you compare it to one of the new Reliability Standards, you won't find a one-for-one relationship.

If you look at Policy 9, which addresses the Reliability Coordinator's procedures, you'll see that many of the requirements have been split into two different new reliability standards.

Policy 9, Section A Requirements

- 1. **Perform security analysis.** (addressed in the Operate within IROLs standard)
 - **1.1. Information sharing.** (addressed partially in the Operate within IROL standard, and partially in the Coordinate Operations standard)
 - **1.2. System Studies.** (addressed in the Operate within IROL standard)
- **2. Study Results**. (addressed partially in the Operate within IROL standard, and partially in the Coordinate Operations standard)
- **3. Conference calls.** (addressed partially in the Operate within IROL standard, and partially in the Coordinate Operations standard)
- **Special operating procedures.** (addressed partially in the Operate within IROL standard, and partially in the Coordinate Operations standard)

Questions about the Procedures Requirement

4. It looks like you want us to develop lots of new documents – we already have documents that collectively address the topics listed in the Procedures Requirement. Do we have to revise the documents we already have?

If you perform the RA function and you already have documents that address the topics listed in the requirement for Procedures, then no new documents are needed. Any set of procedures, processes and plans can be used to meet this requirement. This standard does not require that there be a separate document for each of these topics – a single document may address several of the required topics.

5. Why do these documents need to be approved by other RAs?

There needs to be some evidence that the RAs that are expected to make notifications, exchange information or coordinate actions as part of a Procedure, Process or Plan, have agreed to take the actions outlined in those Procedures, Processes and Plans. This standard assumes that a signature indicating 'approval' is sufficient evidence of agreement between RAs.

6. Do these procedures, processes and plans need to be developed by the RA?

No, the RA may delegate this responsibility to other entities. In some cases, some of the documents required by this standard may be developed by Regions, by Regional Technical Committees, or other entities. This requirement states that the RA must ENSURE that documents have been developed to address the specified topics.

7. What's a Document Change Control Procedure?

A 'Document Change Control Procedure' is a procedure that outlines the steps an entity will follow in maintaining procedures or other documents so those documents are kept up to date, receive appropriate reviews and approvals, are distributed to appropriate personnel, have some system for distinguishing between different versions of the same document, etc.

8. We have some Procedures, Processes and Plans that assign actions to entities that perform functions other than the RA function. Does this standard require me to get the approvals of every entity that is mentioned in each Procedure, Process and Plan? Does this standard require me to distribute these documents to every entity that is mentioned in each Process, Procedure and Plan?

No. This standard is limited to RA to RA coordination, and only requires the RA that develops a procedure, process or plan to obtain approvals from RAs that are required to make a notification, exchange information or coordinate actions as part of that procedure, process or plan. This standard requires that these documents be distributed to all RAs that are required to make a notification, exchange information or coordinate actions.

This standard does not preclude the RA that develops a Procedure, Process or Plan from reviewing and distributing these documents with all entities that are expected to act as part of that document. It is a good practice to ensure that any entity that is expected to act as part of a procedure, process or plan, be given an opportunity to provide input to that procedure, process or plan. Similarly, it is good practice to distribute a copy of each document to every entity that is expected to comply with that document – otherwise, how will the system operators know what is expected of them?

9. What are you expecting in the Procedure, Process or Plan for identified operating scenarios within one RA Area that could have an adverse impact on another RA's Area.

An Operating Scenario is an operating contingency that if left untended, could have an adverse impact that extends beyond the boundaries of a single Reliability Authority Area. Each Region has a set of operating problems that it identifies as part of its Regional Reliability Plan. These operating problems could be considered, 'operating scenarios'.

10. What are you expecting in the Procedure, Process or Plan for daily communications and real time notifications?

The Procedures, Processes or Plans that are used to meet this requirement must, as a minimum, include the following details:

- The conditions under which one RA notifies other RAs
- The process to follow in making those notifications
- The data and information to be exchanged with other RAs.

The forums to exchange this information can include regular structured meetings or conference calls, as well as ad hoc meetings, phone calls and conference calls to deal with dynamic situations observed during the normal course of real-time operation. The need to exchange information does not preclude the use of electronic forums for the transmission of operational data where appropriate, however good utility practices dictate that any operating instructions should be confirmed unless otherwise agreed to, before actions are taken.

These Operating Procedures, Process or Plans should outline items such as the following:

- Communication protocols agreed to between adjacent RAs (as minimum) for both Normal, Emergency and Contingent Operating states and under those conditions where direct voice communication between one or more adjacent RA is lost.
- Communication protocol that will be followed to identify to <u>all</u> adjacent RAs reliability information in the following time frames:
 - Operational Planning analysis, on a daily basis as a minimum, through a prearranged and agreed upon process outlining the forum and timing
 - Real-time analysis on a daily or ad hoc basis as a minimum through a prearranged and agreed upon process outlining the forum and timing
- Communication protocol outlining the RA that has the authority to direct the operation of each element of Jointly Operated Facilities or any identified facility that comprises the reliability of an interconnection. This Operating Procedures, Process or Plans should also include communication requirements for the:
 - Forced manual removal from service of equipment (under both immediate and future conditions)
 - Planned removal from service of equipment
 - Remedial actions upon automatic removal from service of equipment
 - Restoration of equipment to service,
 - Deployment of system auxiliaries / dynamic control systems / special protection systems
 - Real and reactive power dispatch across the joint facility.
- Communication protocols for the deployment and delivery of Operating Reserves where reserve sharing agreements are in force

- Communication protocols for the scheduling and deployment of Automatic Generation Control under sharing arrangements, pseudo tie line operation and dynamic tie line operations
- Communication process for the validation of inadvertent and scheduling procedures for those RAs acting as BA or IA functions.

11. What are you expecting in the Procedure, Processor Plan for resolution of energy and capacity shortages?

The Operating Procedures, Process or Plans should outline the methods that will be used for the procurement and delivery of Energy or Operating Reserves under specified conditions to mitigate the reliability impacts of an energy and /or capacity short fall.

12. What are you expecting in the Procedure, Process or Plan for eexchange of planned or unplanned outage information

The Operating Procedures, Process or Plans should outline the following as a minimum:

- The outage planning process to be followed between RA's
- The identification of critical facilities that are impactive to each other's systems
- The process for identifying planned outages, urgent outages and forced outages and system tests as well as any identifying any associated notification timelines.

13. What are you expecting in the Procedure, Process or Plan for system restoration

The Operating Procedures, Process or Plans should outline the coordination strategies and priorities between adjacent RA for the expedient implementation their associated system restoration plan.

The Operating Procedures, Process or Plans should also outline the method and periodicity for the testing of RA-to-RA coordination to meet the strategies and priorities.

14. What are you expecting in the Procedure, Process or Plan for voltage control?

The Operating Procedures, Process or Plans should outline the expected voltage control procedure that satisfies the normal or contracted conditions and the actions to be taken to address abnormal voltage conditions.

15. What are you expecting in the Procedure, Process or Plan for coordination of information exchange to support reliability assessments

The Operating Procedures, Process or Plans should outline the actions to be taken when one RA identifies a need obtain specific information to support both regular and ad hoc reliability assessments.

Questions about the Notifications and Information Exchange Requirement

16. Why do you require participation in agreed upon daily conference calls – shouldn't these be limited to emergencies?

There are several reasons for supporting daily conference calls.

- In a conference call, the impacts of things like adverse weather can be discussed so that all RAs have heard the same information and have a common basis on which to make operating decisions.
- The information exchanged during daily conference calls provides each RA with information that may be useful in analyzing operating situations that arise during the day.
- When RAs get into a routine of daily discussions and sharing of information, they are
 'practicing' the communication skills needed during adverse operating conditions.
 When there is a real emergency, it is too late to verify that each RA has correct contact
 information needed to reach other RAs. During an emergency, people feel most
 comfortable when the emergency procedures ask them to do things they've practised.

17. What do you expect to be discussed in the agreed-upon daily conference call or other communication forums?

The RA needs to follow the Operating Procedures, Processes or Plans for making notifications and exchanging reliability-related information with other RAs. There should be a list of items exchanged each day such as:

- Expected daily resource requirements, dispatch pattern for real and reactive resources, transmission configurations, and the associated impact of each element on the RA and the adjoining RA's (ie effect of outage plan and associated dispatch on both the host RA and other RAs) and spare capacity in the forecast horizon.
- Actual / expected resource requirements, dispatch pattern for real and reactive
 resources, transmission configurations, and the associated impact of each element on
 the RA and the adjoining RA's (ie effect of outage plan and associated dispatch on both
 the Host RA and other RAs) and spare capacity in the real time dispatch time horizon.

Questions about the Coordination Requirement

18. If an RA calls me and indicates I have a problem on my system, and I'm not seeing the problem, why should I be forced to re-evaluate my system?

When two RAs have conflicting system status, BOTH RAs are expected to re-evaluate their own system and determine what is causing the conflicting data. When two systems have conflicting status or information, there is a problem, and the cause of the problem must be identified and resolved. If both RAs work to verify that their systems are operating properly, then the time needed to resolve the issue will be shortened and this should have a positive impact on supporting reliability.

19. If RAs can't agree on the resolution to a problem, how does the problem get resolved? Where agreement between RAs cannot be reached, each RA acts in its own RA Area to prevent or mitigate adverse effects on Interconnection reliability. Each RA must notify other RAs of the conditions being observed and alert them to any consequences.