

PJM Compliance Bulletin

PJM Control Room Interactions

This Compliance Bulletin provides an explanation of the interactions and coordination between operators in PJM's control room as they relate to the NERC functional model responsibilities.

This document is not meant to supplant any PJM or Member Agreements, PJM Manuals or the PJM TO-TOP Reliability Matrix. Any discrepancies or conflicts should be resolved giving priority to those documents, as appropriate. The content of this document does not replace any obligations in any other PJM document.

Control Room Positions

PJM staffs its control rooms with the following identified positions and general responsibilities:

Shift Supervisor – Leadership for all control room activities, Technical expertise

Reliability Engineer – Next day outage analysis, Interaction with neighboring areas, Network Applications support

Power Dispatcher – Transmission system security, Transmission outage coordination, Voltage Control

Generation Dispatcher – Real-time Load/Generation Balancing, Reserve monitoring and deployment, Generation redispatch

Master Coordinator – Load forecasting, Generator Outage Processing, Next day generation scheduling, Interchange coordination

PJM also identifies an operator title of **Master Dispatcher**, which is an operator who is cross-trained at both the Power Dispatcher and Generation Dispatcher positions

NERC Functions

PJM is registered with NERC (as it relates to control room functions) as a Reliability Coordinator, Transmission Operator and Balancing Authority. ***The Shift Supervisor at PJM is responsible for all activities related to these NERC functions.*** The specific tasks supporting these functions in many cases are delegated to one or more of the PJM control room operating positions.

The control room positions have been established based on delineation of tasks considering workload, efficiency, job knowledge required, tools utilized and control room communication. This delineation does not directly correlate (1 operator/position to 1 function) with the NERC functional model definitions/titles. At PJM, **the Shift Supervisor has the ultimate**

responsibility for ensuring compliance with applicable NERC Standards for these functional areas.

Coordination & Communication

PJM operates two control rooms (C1 and C2) concurrently. Though the two currently operating control centers are physically separated, the two control rooms operate as one coordinated team. There is a live videoconferencing connection between the two control rooms at multiple positions which is active at all times. Outside phone calls ring and can be answered at both control rooms through a common and redundant phone turret system. The PJM Shift Supervisor may be located at either facility.

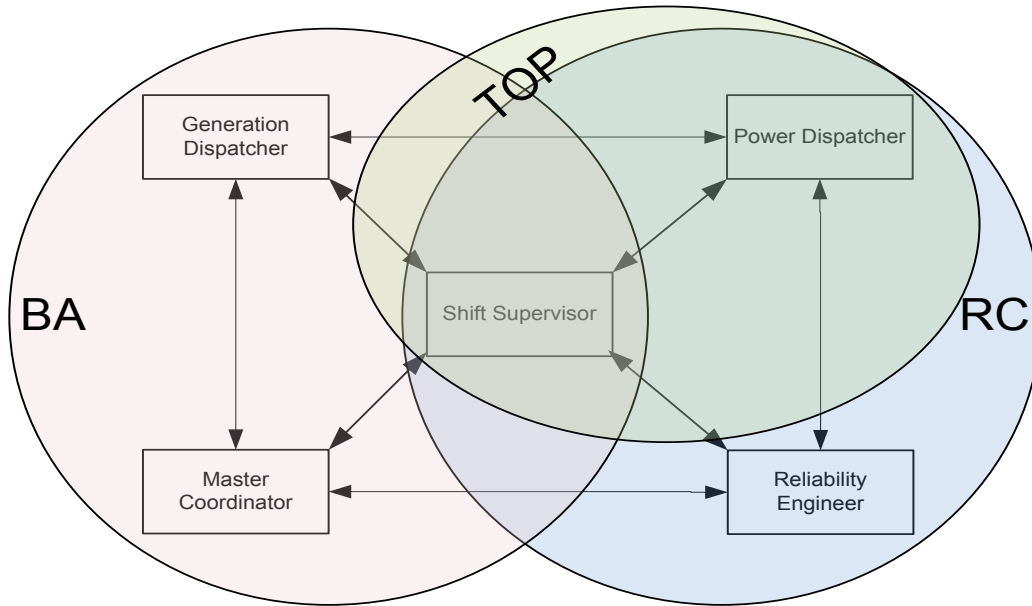
In addition to the voice communication described above, the operators at both control rooms utilize a **common** set of operating tools and Energy Management System. Also, the Generation Dispatcher and Power Dispatcher routinely utilize common dispatch tools for generation dispatch and constraint control through off-cost redispatch of generation.

All operators share a common electronic logging tool. Utilizing common toolsets provides a common level of situational awareness across positions. Although the operators share most of the same tools, responsibilities are delineated by task and geographic region in many cases. It is through this close coordination that PJM can reliably perform all the tasks of the Reliability Coordinator, Transmission Operator and Balancing Authority from these two control rooms.

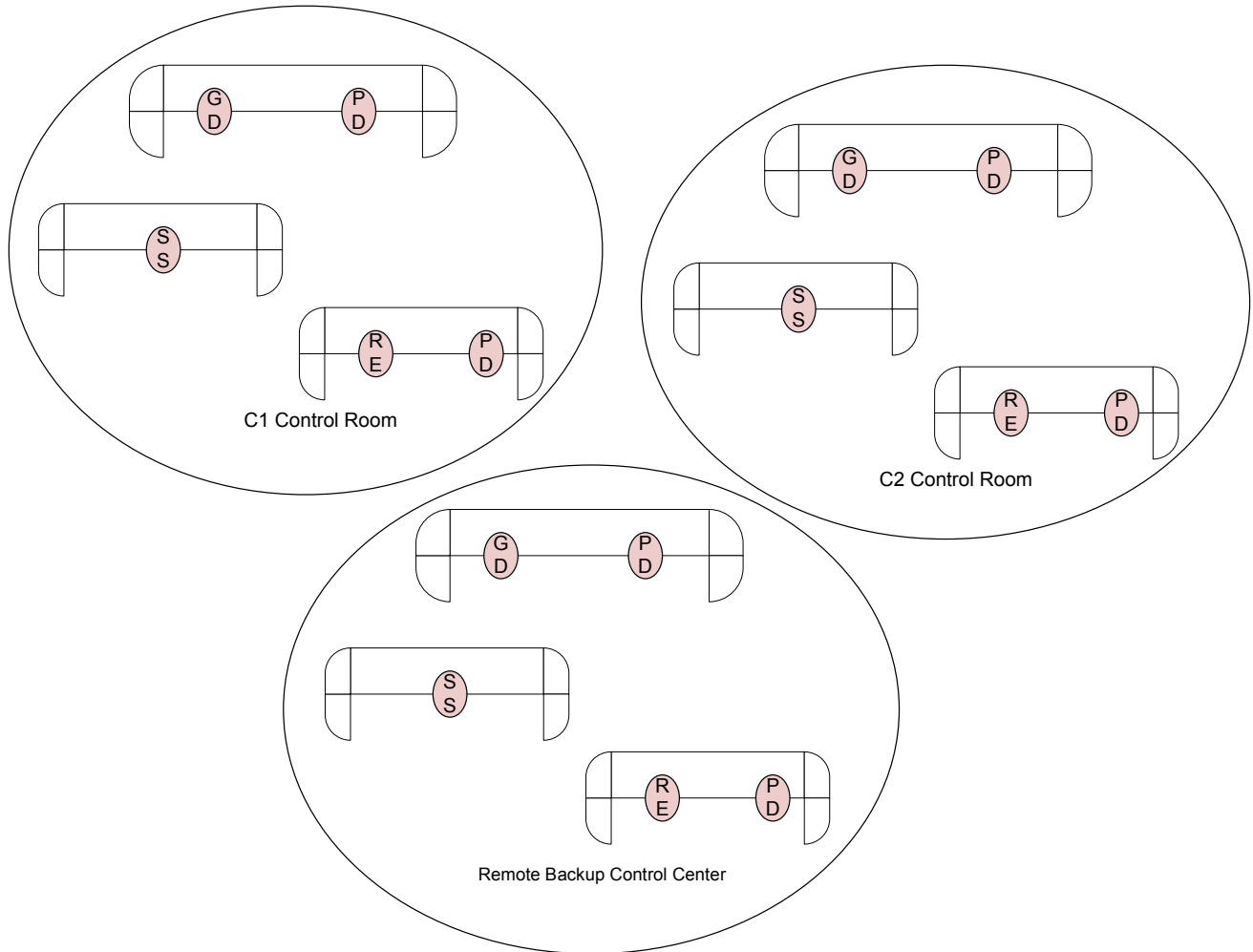
Additionally, because these two centers can work seamlessly together using either data center to feed their applications, both centers are the back-up for the other center.

Communication & Coordination Paths

The diagram below shows the interaction between the control room positions at PJM. These interactions include extensive dialogue and data exchange between operators working at these positions:



The positions can be manned at either location with a minimum staffing requirement at each location:



Document Retention

All evidence of compliance shall be retained in accordance with the document retention requirement as stated in the applicable NERC or Regional Reliability Standard. If there is no specific data retention requirement, the data will be retained for four years.

Development History

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Author:	Mike Bryson - General Manager, Dispatch Operations
Reviewers:	T. Burns - Supervisor ,System Operations Patrick Brown - Manager, NERC and Regional Coordination Steve McElwee - Manager, IT Security
Approver:	Tom Bowe - Executive Director, Reliability Integration Division
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Approver:	Tom Bowe, Executive Director Reliability Integration Division
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