



Western Systems Coordinating Council

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OPERATIONS COMMITTEE

SUBJECT: Generator Certification

At the August 25, 1999 PCC/OC Joint Guidance Committee meeting, the members discussed the concept of “generator certification” to recognize those generators that have completed the testing and data validation process recommended following the summer of 1996 outages in the West. As a result of that discussion, the attached document was prepared. On behalf of the PCC/OC Joint Guidance Committee, I hope to obtain your approval of the attached Generator Certification document at the September 15-16, 1999 Operations Committee meeting.

Please advise me of comments or questions.

Best Regards,

M. LeRoy Patterson

M. LeRoy Patterson, Chair
PCC/OC Joint Guidance Committee

MLP:pb

attachment

cc: PCC/OC Joint Guidance Committee
A. J. Perez, CISO

WSCC GENERATOR CERTIFICATION

BACKGROUND

Western Systems Coordinating Council's (WSCC) generator testing program was developed and initiated as a direct result of the widespread electric system disturbances experienced in the Western Interconnection during July and August 1996. Generating units within the Interconnection did not behave as anticipated or as predicted in WSCC's simulation studies. Computer simulations, representing the actual conditions of July 2 and August 10, indicated that the system would successfully withstand the disturbances without widespread outages. However, the outages themselves confirmed that the computer models were incorrect and required better representation of generator components such as governors, turbines, exciters, power system stabilizers, as well as other system elements. The disconnect between the simulations and actual system performance indicated the vital need for better data. The recommendation to test generating units was made recognizing that it would entail costs, risks, and significant effort. This recommendation was endorsed by the WSCC Board of Trustees and by the North American Electric Reliability Organization (NAERO). WSCC's testing initiative is intended to apply to all units, 10 MVA or larger, regardless of ownership, class of market participant, or voltage level.

CERTIFICATION

WSCC certification shall be awarded to generators that have been successfully tested and the test data validated in accordance with WSCC's *Test Guidelines for Synchronous Unit Dynamic Testing and Model Validation*. WSCC's Modeling and Validation Work Group is responsible for determining whether the requirements for certification have been met. The certification shall be valid for a period of five years unless the certified generator incurs changes in equipment or other changes that would require re-certification before the expiration of the five-year period.

Certificates shall be awarded for those qualifying generators to the WSCC Council Representatives and designated non-WSCC member representatives of the organizations that own or operate the generators. The presentation of certificates shall be made at WSCC Annual Meetings.

A list of the generators that have achieved WSCC certification shall be published on the WSCC internet web page and reported to the North American Electric Reliability Organization (NAERO) and federal and state regulatory bodies in recognition of their achievement, conformance with WSCC recommendations, and in contributing to the reliability of the interconnected electric system comprising the Western Interconnection.