

The Florida operating group has frequent meetings to focus attention on spinning reserves, underfrequency relay protection, adequate communication between system operators. The group operates on the premise that each supplier will undertake to stand on its own feet and provide its own reserves. For better continuity of service, the five suppliers are interconnected and in emergencies each supplier aids the system in trouble to the maximum extent of its reserves.

Reliability of service is a dominant factor in the design of systems of the Florida group. This philosophy is also strongly emphasized in operations. For example, it is common practice to avoid taking lines or equipment out of service under conditions which might jeopardize service reliability. When it is necessary to take lines or equipment out of service, precautionary steps are taken such as starting up higher cost generation for area protection.

The match of generating capacity with load in the population centers and the transmission lines between load areas in Florida have produced strong reliable systems. The individual members of the group have for some years projected future generation and transmission system requirements to maintain and even increase this reliability. Intersystem interconnections are being planned and constructed to assure continuing reliability under changing conditions.

The several individual systems of the Florida group for many years have made stability studies to determine how the systems would function under emergency conditions. They demonstrated that the group would remain stable and intact over a wide range of system difficulties. As a result of the Northeast power failure, a new stability study is being made based on more stringent assumptions as to credible incidents than has been past practice. New emphasis is being placed on multiple contingency outages.

To avoid an excessive number of generating units being out of service simultaneously for maintenance and to insure the maximum availability of installed reserves, the individual systems coordinate their maintenance schedules through the Florida Operating Committee.

The several individual systems have always made close and frequent checks of relay settings. These checks are made by people who are constantly in touch with operating conditions. There are sixteen oscillographs located in major substations throughout peninsular Florida. These are valuable tools for analyzing relay operations for fault conditions. Additional installations are contemplated. As a result of the Northeast power failure, the Florida Operating Committee is jointly reviewing relay practices and philosophies of the five individual systems.

Several power plants in peninsular Florida can be started from blackout conditions, but the matter of adequate and properly located auxiliary power supply for emergency startup is under examination. Orlando Utilities Commission is considering conversion to allow emergency startup of its two gas turbines under isolated conditions. Other group members are developing methods of starting steam plants under isolated conditions with the aid of diesel driven emergency generators. Gas turbines are being considered as well as power from certain industrial plants as sources of emergency startup power. Our designers and operators are perhaps among the most conservative in the country, in providing emergency power for communication facilities, lighting, instrumentation, critical small motors, and other equipment necessary for aiding system operation during adverse conditions. However, as a result of the Northeast power failure, these facilities are being examined from the standpoint of reliability under blackout conditions.

Each system has reviewed its operating practices and instructions to dispatching, plant and other operating personnel, and has conducted reviews and refresher courses with these personnel. These reviews stressed procedures and judgments involved in service restoration, and they have included blackboard sessions and dry runs where emergencies have been simulated and solutions practiced and discussed.

The dispatching offices of the individual group members are new and modern. These offices are linked together by excellent communication facilities consisting of microwave, leased circuits, teletype and radio. They are also linked to the power plants and substations by excellent communication facilities. Information is exchanged constantly concerning loads, reserves and unusual operating conditions. In time of emergencies the dispatchers can very quickly communicate and take proper corrective steps on the basis of factual and up-to-the-minute information.

7. Any information in relation to any studies you have made on the system effect of a power surge, such as took place in the northeast area of the United