



FPL

Electric Service Standards

DATE

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PREPARED BY

Delivery Assurance –
Design Support

SUBJECT

X. ELECTRICAL DISTURBANCES

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X. ELECTRICAL DISTURBANCES

Electric welders, furnaces, electric draglines, electric dredges, large, frequently started, motorized equipment, variable speed drives, SCR converters, and tankless water heaters are **examples** of equipment that have operating characteristics which may require rapidly fluctuating amounts of current. If the device is large, significant voltage fluctuations may result, even on a system which is adequate for normal service. ***These voltage fluctuations may affect the operation and life of other equipment in the customer's facility as well as the equipment of other customers in the vicinity.***

Section IX covers FPL's requirements when frequent starting of large motors is involved.

When service is required for any of the other devices mentioned, or similar devices, FPL shall be consulted. It may be found that the device cannot be served at the specific location unless special facilities and control equipment are provided both by FPL and the Customer.

The cost for any additional or upgraded facilities that are required to be installed by FPL in order to serve these devices will be borne by the customer as CIAC. If the adverse effects cannot be mitigated by the installation of additional or upgraded facilities, or if these devices cause objectionable flicker to other customers' service, FPL may require the device to be disconnected from the electrical system.

There are other devices, such as silicon controlled rectifier (SCR) devices, or any device which suddenly interrupts current at other than a natural zero point, which may cause high frequency voltage oscillations or transients in the circuit. This may be detrimental to the Customer's service or to that of an adjacent Customer. It may be necessary for the Customer to install filters or other corrective devices if he wishes to continue the use of such equipment.

If the Customer uses carrier current or any other system that superimposes a voltage with a frequency other than the normal 60 hertz voltage on his wiring, he shall provide filters or other equipment, as required, to prevent it from appearing on FPL's distribution system.