

Sources of Disturbances

IN YOUR BUILDING OR OFFICE

Electrical disturbances produced within your building can cause problems with sensitive equipment. These disturbances may occur more frequently and appear more severe due to the proximity of sensitive equipment to the disturbance source. Even an appliance as seemingly innocent as an office coffee machine switching on and off may result in a problem with a small computer or other electronic devices.

Some of the more common sources of internal power disturbances for small commercial customers are:

- * copy machines
- * elevators
- * air conditioners
- * electric motors
- * vending machines
- * electric furnaces
- * electric welders
- * telephone switching equipment
- * fluorescent lights
- * electronic equipment
- * adjusting speed controls on rotating equipment

In general, any device that draws a fluctuating current or draws a great deal of power at start-up can cause problems.

ON THE UTILITY SYSTEM

Utility electric systems are subject to a number of external influences, which can cause power line disturbances. Some of the most common are:

- * lightning, wind and other weather related conditions
- * switching on the utility system
- * vehicular accidents involving utility poles or above-ground equipment
- * dig-ins of underground electrical lines
- * damage to wires by trees
- * animals making contact with power lines
- * equipment malfunctions
- * vandalism

The frequency and extent of disturbances you experience depend largely on weather conditions, as well as your proximity to possible disturbance sources on the utility system.