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to send the next data byte until the peripheral acknowledges the transfer using nAck.) The host may not initiate negotiation to a new operating mode until the interface returns to Compatibility Mode forward idle phase. (C/MM) 1284-1994

Compatibility Mode forward idle phase When the interface is in Compatibility Mode with no data transfer in progress. The host may initiate a data transfer in Compatibility Mode or may initiate negotiation to a new operating mode.

(C/MM) 1284-1994

compatible Pertaining to a computer system or system component that is capable of handling data and programs intended for use with some other system or component. *See also*: downward compatible; upward compatible.

(C) 610.10-1994w

compatible device A device that supports any of a specified range of popular variants of the "Centronics" interface. Compatible devices will interoperate with compliant devices in Compatibility Mode only. (C/MM) 1284-1994

compelled data transfer protocol A technology-independent transfer mechanism in which the slave is compelled to provide a response before the master proceeds to the next transfer. (C/BA) 10857-1994, 1014.1-1994w, 896.4-1993w

compensated control system (control systems for steam turbine-generator units) An interconnected system that controls two or more variables (speed, load, pressure, etc.) with compensation designed to minimize the interaction between the controlled variables. (PE/EDPG) 122-1985s

compensated-loop direction-finder A direction-finder employing a loop antenna and a second antenna system to compensate polarization error. *See also*: radio receiver.

(EEC/PE) [119]

compensated repulsion motor A repulsion motor in which the primary winding on the stator is connected in series with the rotor winding via a second set of brushes on the commutator in order to improve the power factor and commutation.

(PE) [9]

compensated semiconductor (charged-particle detectors) (germanium gamma-ray detectors) (x-ray energy spectrometers) A semiconductor in which one type of impurity or imperfection (for example, donor) partially cancels the electric effects of the other type of impurity or imperfection (for example, acceptor).

(IM/NPS/ED/HFIM/NID) 314-1971w, 325-1996, 300-1988r, 301-1976s, 216-1960w

compensated series-wound motor A series-wound motor with a compensating-field winding. The compensating-field winding and the series-field winding may be combined into one field winding. *See also*: asynchronous machine.

(PE) 224-1965w, [9]

compensating-field winding (rotating machinery) Conductors embedded in the pole shoes and their end connections. It is connected in series with the commutating-field winding and the armature circuit. *Note*: A compensating-field winding supplements the commutating-field winding, and together they function to assist the reversal of current in the armature coils for successful commutation. *See also*: asynchronous machine. (PE/EEC) [119]

compensating-rope sheave switch A device that automatically causes the electric power to be removed from the elevator driving-machine motor and brake when the compensating sheave approaches its upper or lower limit of travel. *See also*: hoistway. (EEC/PE) [119]

compensation (control system feedback) A modifying of supplementary action (also, the effect of such action) intended to improve performance with respect to some specified characteristic. *Note*: In control usage, this characteristic is usually the system deviation. Compensation is frequently qualified as series, parallel, feedback, etc., to indicate the relative position of the compensating element. *See also*: equalization; feedback control system. (PE/EDPG) 421-1972s, [3]

compensation theorem States that if an impedance is inserted in a branch of a network, the resulting current increment

produced in any branch in the network is equal to the current that would be produced at that point by a compensating voltage, acting in series with the modified branch, whose values is, where I is the original current that flowed where the impedance was inserted before the insertion was made.

(EEC/PE) [119]

compensator (1) (rotating machinery) An element or group of elements that acts to modify the functioning of a device in accordance with one or more variables. *See also*: asynchronous machine. (PE) [9]

(2) (radio direction-finders) That portion of a direction-finder that automatically applies to the direction indication all or a part of the correction for the deviation. *See also*: radio receiver. (EEC/PE) [119]

(3) (excitation systems) A feedback element of the regulator that acts to compensate for the effect of a variable by modifying the function of the primary detecting element. *Notes*: 1. Examples are reactive current compensator and active current compensator. A reactive current compensator is a compensator that acts to modify the function of a voltage regulator in accordance with reactive current. An active current compensator is a compensator that acts to modify the function of a voltage regulator in accordance with active current. 2. Historically, terms such as equalizing reactor and cross-current compensator have been used to describe the function of a reactive compensator. These terms are deprecated. 3. Reactive compensators are generally applied with generator voltage regulators to obtain reactive current sharing among generators operating in parallel. They function in the following two ways.

1) Reactive droop compensation is the more common method. It creates a droop in generator voltage proportional to reactive current and equivalent to that which would be produced by the insertion of a reactor between the generator terminals and the paralleling point.

2) Reactive differential compensation is used where droop in generator voltage is not wanted. It is obtained by a series differential connection of the various generator current transformer secondaries and reactive compensators. The difference current for any generator from the common series current creates a compensating voltage in the input to the particular generator voltage regulator which acts to modify the generator excitation to reduce to minimum (zero) its differential reactive current.

3) Line drop compensators modify generator voltage by regulator action to compensate for the impedance drop from the machine terminals to a fixed point. Action is accomplished by insertion within the regulator input circuit of a voltage equivalent to the impedance drop. The voltage drops of the resistance and reactance portions of the impedance are obtained, respectively, in per unit quantities by an active compensator and a reactive compensator.

(PE/EDPG) 421-1972s

(4) (as applied to relaying) A transducer with an air-gapped core that produces an output voltage proportional to input current. The voltage modifies (or *compensates*) the voltage applied to the relay. (SWG/PE) C37.100-1992

compensatory leads Connections between an instrument and the point of observation so contrived that variations in the properties of leads, such as variations of resistance with temperature, are so compensated that they do not affect the accuracy of the instrument readings. *See also*: auxiliary device to an instrument. (EEC/PE) [119]

compensatory wiring techniques (coupling in control systems) Those wiring techniques which result in a substantial cancellation or counteracting of the effects of rates of change of electric or magnetic fields, without actually obstructing or altering the intensity of the fields. If the signal wires are considered to be part of the control circuit, these techniques change the susceptibility of the circuit. Example: twisting of signal and return wires associated with a susceptible instrument so as to cancel the voltage difference between wires