POWER PLANT DICTIONARY

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GAGE PRESSURE - Absolute pressure minus atmospheric pressure.
GALVANIC ACTION - Wasting away of two unlike metals due to electrical current passing between them. The action is increased in the presence of moisture.
GALVANIC CELL - Electrolytic brought about by the difference in electric potential between two dissimilar metals.
GALVANIC COUPLE - The connection of two dissimilar metals in an electrolyte that results in current flow through the circuit.
GALVANIZING - The coating of metal with another by an electrolytic process; for example, electrolytically zinc-coat steel is called galvanized steel.
GAS - Usually a highly superheated vapor which, within acceptable limits of accuracy, satisfies the perfect gas laws.
GAS CONSTANT - The coefficient "R" in the perfect gas equation: PV = MRT.
GAS LUBRICATION - A system of lubrication in which the shape and relative motion of the sliding surfaces cause the formation of a gas film having sufficient pressure to separate the surfaces.
GAS REFRIGERATION CYCLE - Where the refrigerant remains in the gaseous phase throughout.

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GAS TURBINE - An engine in which gas , under pressure is formed by combustion, is directed against a series of turbine blades. The energy in the expanding gas is converted into rotary motion.
GAS TURBINE COMPRESSOR - a compressor designed foe the use with gas turbine installations. This could be centrifugal or an axial compressor.
GAS VALVE - Device in a pipeline for starting, stopping or regulating flow of gas.
GAS, INERT - A gas that neither experiences nor causes chemical reaction nor undergoes a change of state in a system or process; e.g., nitrogen or helium mixed with a volatile refrigerant.
GASIFICATION - When a substance is converted to become a gas.
GASKET - A device, usually made of a deformable material, that is used between two relatively static surfaces to prevent leakage.
GAUGE MANIFOLD - Chamber device constructed to hold both compound and high-pressure gauges. Valves control flow of fluids through.
GAUGE VACUUM - Instrument used to measure pressures below atmospheric pressure.
GENERAL CORROSION - Uniform overall corrosion of metal surfaces.

GENERATING TUBE - A boiler tube used for evaporation.

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GENERATOR - A machine that changes that changes mechanical energy into electrical energy.
GFI, GFCI - Ground fault (circuit) interrupter - a device that senses ground faults and reacts by opening the circuit.
GOVERNOR SPEED DROOP - Speed droop is a governor function which reduces the governor reference speed as fuel position (load) increases. The definition of droop is the amount of speed (or frequency) change that is necessary to cause the main prime mover control mechanism to move from fully closed to fully open. In general, the percent movement of the main prime mover control mechanism can be calculated as the speed change (in percent) divided by the per unit droop.
GRAIN - A unit of weight; 0.0648 grams; 0.000143 pounds.
GRAIN BOUNDARIES - Referring to the junction of crystallites.
GRAINS OF MOISTURE - The unit of measurement of actual moisture contained in a sample of air. (7000 grains - one pound of water).
GRAINS PER GALLON - A unit of concentration. 1 gr/gal = 17.1 mg/L.
GRAM - A unit of weight; 15.432 grains; 0.0022 pounds.
GRAM-MILLIQUIVALENTS - The equivalent weight in grams, divided by 1000.
GRAVITY - The attraction exerted by the earth's mass on objects at its surface.
GRAVITY, SPECIFIC - Density compared to density of standard material; reference usually to water or to air.
GREASE - A lubricant composed of an oil thickened with a soap or other thickener to a solid or semisolid consistency.
GREASE, BLOCK - A grease that is sufficiently hard to retain its shape in block or stick form.
GREASE, SODA BASED - A grease prepared from lubricating oil and sodium soap.
GREEN LIQUOR - The liquor resulting from dissolved molten smelt from Kraft recovery furnace in water.
GREENSAND - Naturally occurring materials, composed primarily of complex silicates, which possess ion-exchange properties.
GROOVING - A form of deterioration of boiler plate by a combination of localized corrosion and stress concentration.
GROUND - Zero voltage, or any point connected to the earth or "ground".
GROUND BED - Cathodic protection, an interconnected group of impressed-current anodes that absorbs the damage caused by generated electric current
GROUND BUS - A busbar in a panel or elsewhere, deliberately connected to ground.
GROUND COIL - Heat exchanger buried in the ground. May be used either as an evaporator or as a condenser.

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GROUND CONDUCTOR - Conductor run in an electrical system, which is deliberately connected to the ground electrode. Purpose is to provide a ground point throughout the system. Insulation color green. Also called "green ground".
GROUND FAULT - An unintentional connection to ground.
GROUT - To force sealing material into a soil, sand or confined small space; or the sealing material used in grouting.



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