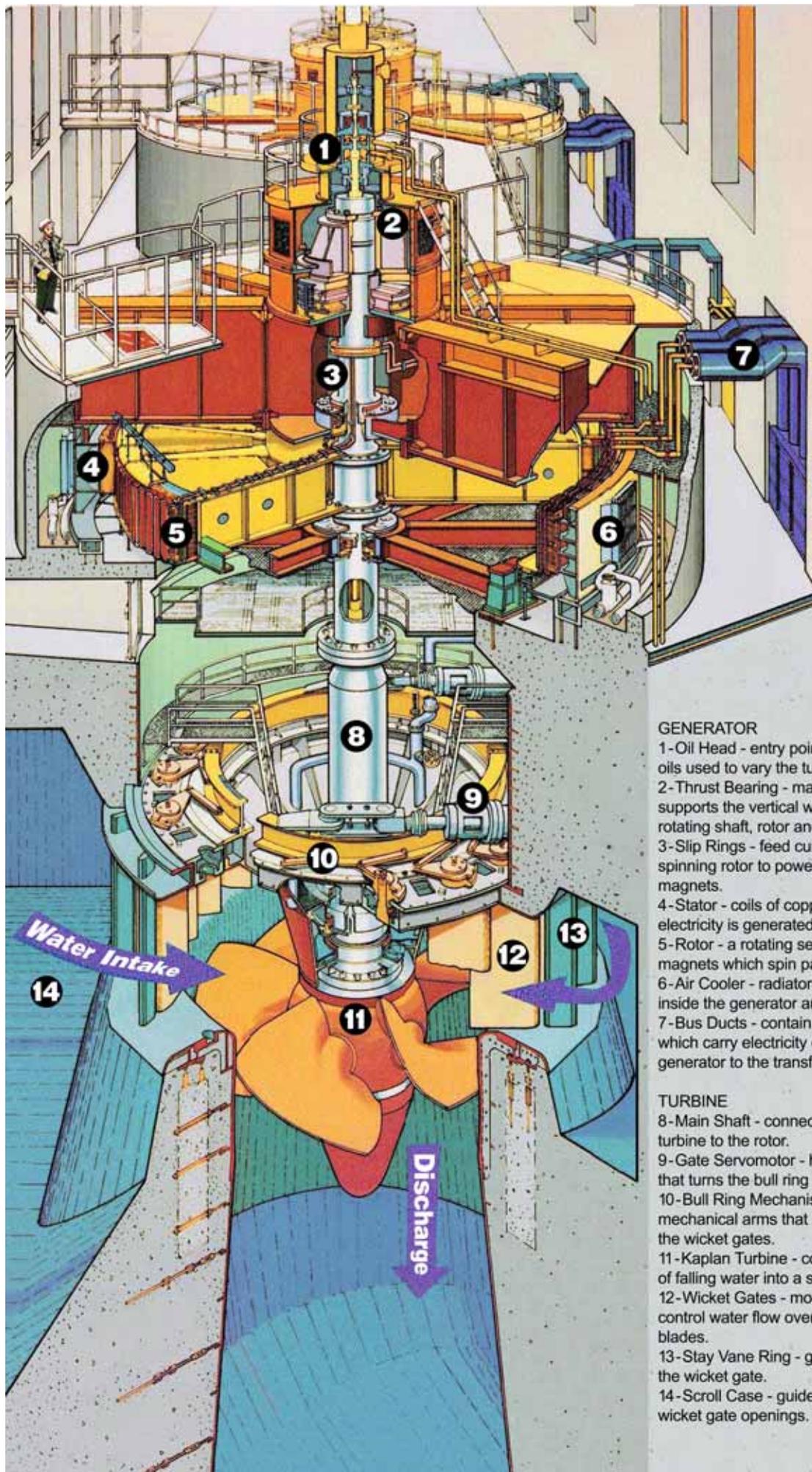


# TURBINE



## GENERATOR

- 1-Oil Head - entry point for hydraulic oils used to vary the turbine blade angle.
- 2-Thrust Bearing - main bearing that supports the vertical weight of the rotating shaft, rotor and turbine.
- 3-Slip Rings - feed current into the spinning rotor to power its electro-magnets.
- 4-Stator - coils of copper strands where electricity is generated.
- 5-Rotor - a rotating set of electro-magnets which spin past the stator.
- 6-Air Cooler - radiators used to cool air inside the generator and barrel.
- 7-Bus Ducts - contain copper bars which carry electricity out of the generator to the transformer.

## TURBINE

- 8-Main Shaft - connects the spinning turbine to the rotor.
- 9-Gate Servomotor - hydraulic motor that turns the bull ring mechanism.
- 10-Bull Ring Mechanism - a ring with mechanical arms that open and close the wicket gates.
- 11-Kaplan Turbine - converts the energy of falling water into a spinning motion.
- 12-Wicket Gates - movable gates that control water flow over the turbine blades.
- 13-Stay Vane Ring - guides water into the wicket gate.
- 14-Scroll Case - guides water into the wicket gate openings.