

IMPRESSED CURRENT CATHODIC PROTECTION METHOD



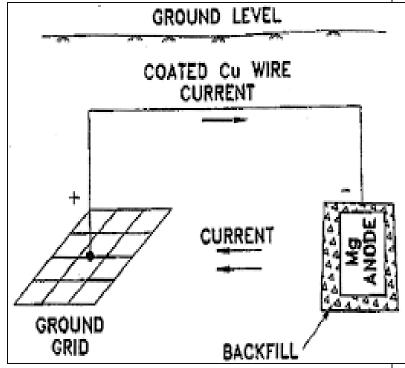
PRINCIPLE

An impressed current is applied in the opposite direction of the corrosion current to nullify it & corroding metal is converted from

anode to cathode.

Construction

- > -Ve terminal : object to be protected
- ►+Ve terminal : an inert anode.
- ➤ Inert anode: graphite or platinized Ti
- > The anode is buried in a back fill



► (Back fill: a mixture of gypsum, coke, breeze and sodium

sulphate)



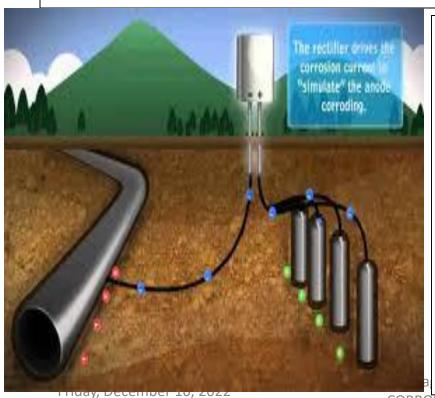
WORKING

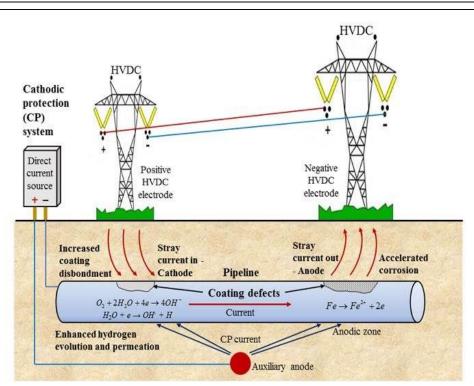


The back fill provides good electrical contact to anode.

The current from the battery is impressed on the metallic structure to be protected which acts as the cathode.

Applications





CORROSION & ITS CONTROL





Advantages of impressed current protection method

- oLarger driving voltage.
- oLarger flexibility control.
- oIt is applicable to large objects.
- OUncoated parts can also be protected.

Limitations of impressed current protection method

1. Maintenance and installation cost are very high.