Lead quenching furnace

Date : 10.01.06

Trouble shooting

- Ignition problems
  - air/gas pressure
    - main governor
  - air/gas ratio
    - BZR governor
      - Membrane
      - If LPG : presence of oil coming from cracking
    - Bad adjustment (mixer)
  - UV
    - Dirty quartz
    - Condensation on the quartz
  - Defective Spark plug
  - Defective high voltage transformer
  - Defective flame relay
  - UV cell
  - Burner damaged
  - Check the mini ignition pressure
- Temperature is increasing in zone 1
  - Presence of oxides around cooling nest and cooling pin
    - Cleaning the cooling nest and cooling pin
  - Cooling air servomotor
    - Check the good running of the cooling air servomotor after having checked the stop of burners in zone 1
    - Check the good running of the servomotor flap as well as it coupling
    - Check the adjustment of the air feeding flap at the exit of cooling nest and cooling pin
  - Head tank fan
    - Adjust the damper of the head tank fan
    - Check the good running of the fan
  - Lead pump
    - Check the good circulation of lead from back side to front side of the tank
    - Check the good overflowing of the lead under the junction
- Lead drag-in
  - Air inlet under the junction
  - Crossed wires
  - State of wire surface
  - Austenitizing furnace reversed
  - Austenitizing furnace atmospheres
  - Austenitizing furnace under depression
  - Wet wires at the inlet of the austenitization furnace
  - Lead level too low
  - Lack of coal into the wiping tank
  - Check the sand seal at the junction furnace/tank
- Lead pump problem
  - Check the presence of cooling water of the pump
  - Cleaning the well of the pumps
  - Tube sending the lead to the inlet clogged
  - Check there is no oxides near the junction in the lead discharge chamber
- Corrosion
  - corrosion at the interface air-lead-tank
    - Presence of phosphated wires
    - Combustion of coal
    - Overtemperature into the lead
      - Incorrect setpoint
      - Too high fumes temperatures
- Blocking of lead pump
  - Combustion of coal into the well
  - Accumulation of oxides into the well by lack of regular maintenance
    - Remove the lead pump and clean the well
  - Absence of cooling water during a too long time