

SENERGY Consultants (P) Ltd

Background:

While conducting energy audit at a bulk drug company, quite of few steam traps were observed to be malfunctioning.

Operating Scenario:

The performance of the steam trap was analyzed with the help of

- Ultrasonic steam trap tester
- Thermal imaging camera
- Physical inspection

The major concerns / issues with the traps included

- Improper location of the type
- Failure of traps due carry over of scales through interconnecting cooling water circuit

Energy Conservation Measures:

The small & no investment measured were implemented during the first stage; which included

- Installing the traps at appropriate locations
- Providing suitable strainers before the traps
- Preparing and following the predictive / preventive maintenance schedule

The second step involved incorporating investment oriented suggestions (typically having a payback period of up to 12 months); which included.

- Improving quality of cooling water
- Incorporating automatic control to minimize mixing of cooling water with condensate pipe line

Outcome:

- The first step resulted in 7.5% saving in the boiler fuel consumption
- The second step resulted in an additional 5.0% saving in the boiler fuel consumption
- The output from the affected equipments raised by around 20%