Steam System Tips

1. Fix steam leaks and condensate leaks. *(A 3 mm diameter hole on a pipe line carrying 7 Kg/cm^2 steam would waste 33 Kilo litres of fuel oil per year)*
2. Accumulate work orders for repair of steam leaks that can't be fixed during the heating season due to system shutdown requirements. Tag each such leak with a durable tag with a good description.
3. Use back pressure steam turbines to produce lower steam pressures.
4. Use more-efficient steam desuperheating methods.
5. Ensure process temperatures are correctly controlled.
6. Maintain lowest acceptable process steam pressures.
7. Reduce hot water wastage to drain.
8. Remove or blank off all redundant steam piping.
9. Ensure condensate is returned or re-used in the process. *(6^{0}C raise in feed water temperature by economiser/condensate recovery corresponds to a 1% saving in fuel consumption, in boiler)*
10. Preheat boiler feed-water.
11. Recover boiler blowdown.
12. Check operation of steam traps.
13. Remove air from indirect steam using equipment *(0.25 mm thick air film offers the same resistance to heat transfer as a 330 mm thick copper wall)*
14. Inspect steam traps regularly and repair malfunctioning traps promptly.
15. Consider recovery of vent steam (e.g. -- on large flash tanks).
16. Use waste steam for water heating.
17. Use an absorption chiller to condense exhaust steam before returning the condensate to the boiler.
18. Use electric pumps instead of steam ejectors when cost benefits permit
19. Establish a steam efficiency-maintenance program. Start with an energy audit and follow-up, then make a steam efficiency-maintenance program a part of your continuous energy management program.