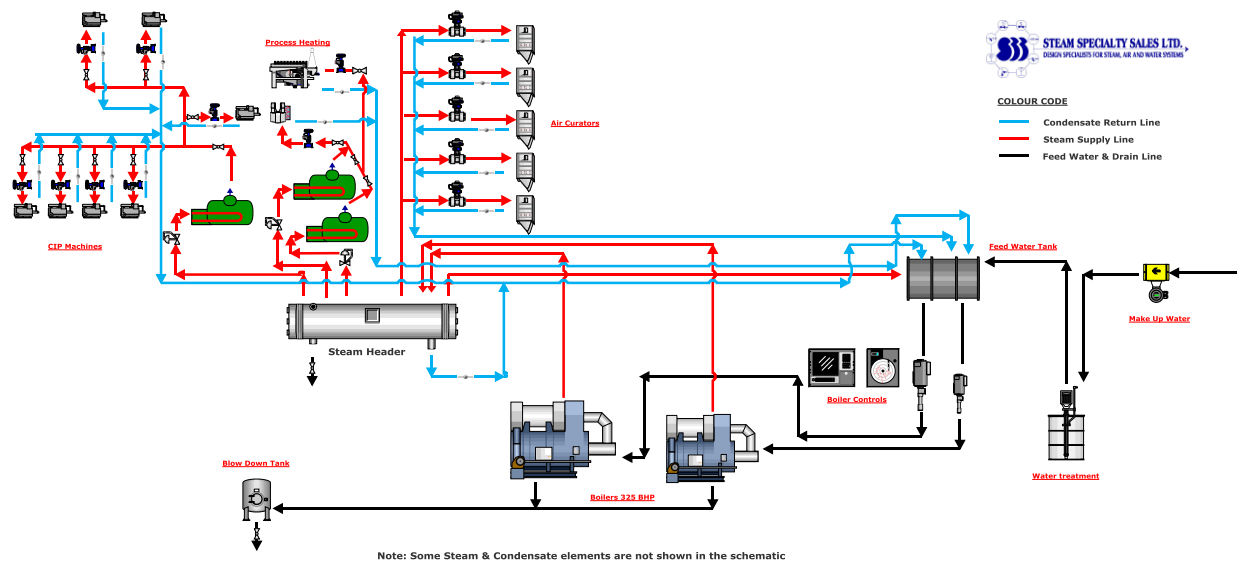


**Complete Care for your Steam System**



**Business Case:**

We were approached by a large Industrial facility to have a detailed inspection of their complete steam loop and verify if they had enough steam capacity for some more processes to be added in the facility.

**Application:**

A complete study of the steam and water system in the plant. Detailed Level 3 Energy Audit as per AEE pertaining to the steam system, verified and approved by Certified Energy Manager.

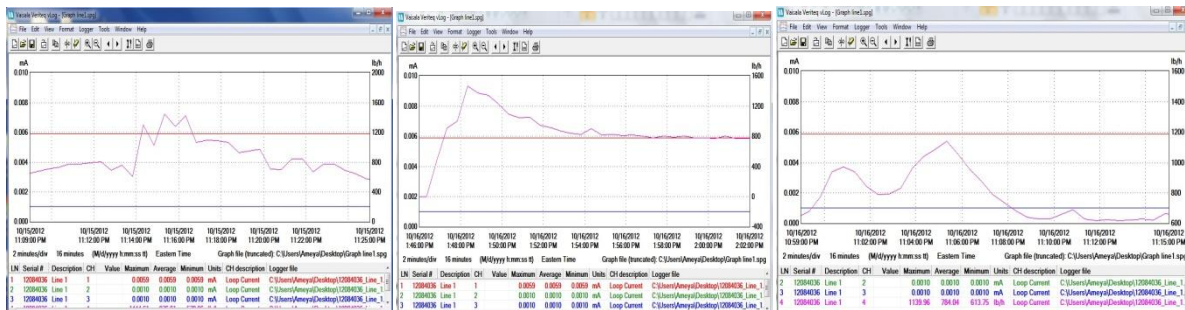
**Solution:**

Steam and Thermal Technologies with its strong team of expertise and CEMs recommended a preliminary walk through, to have an idea about the existing system and to get the management involved. This was followed by an Official Level 1 Audit to identify the steam lay out, Primary supply and demand of steam based on Tag information. Identify obvious cures to ailing steam loops with leaks, lack of insulation etc.

This was followed with a Level 2 audit, which included a detailed Steam Trap survey and detailing steam and water distribution throughout the plant. A boiler combustion test is done and thermal mapping is done at steam trapping units.

Following which Flow meters were installed on main steam line and tied with the central automation system to identify individual steam loads and peaks and lows of demand. This helped to identify the exact Steam Generating capacity and the exact supply on individual line. Based on a which a thermal balance sheet was made. We were able to clearly identify the steam demand patterns along with the total capacity based on which new generating capacity was proposed. We were able to identify exact needs rather than guessing to select the new boiler capacity. Certain Heat recovery opportunities were identified which helped to reduce certain loads by pre heating. The new system proposed had a more boiler load management approach rather.

Involvement of proper utility provider and internal company management helped the project to go more smoother and have a much optimized and efficient steam system. Most of the cost was covered by the rebates for the Audit, partly of which was absorbed by Steam & thermal Technologies in the project that followed.



## Advantages:

- A complete review of your system, approved by Certified Energy Manager.
- All flows measured, and report includes Thermal Mass Balance
- Gives Boiler Efficiency and total system Efficiency
- Recommendations on Maintenance and upkeep of plant for minimal energy losses
- Financially mapped Energy Conservation Capital Expenditure Projects
- Reports approved for rebate by utilities provider