Summary of study: Boiler efficiency improvements in an ice cream and fresh cream production unit: Unit - 1

Industry: Ice cream and fresh cream

Unit profile : A unit located in Pune (Maharashtra) engaged

in production of ice cream and fresh cream

Technology:

• High efficient once-through boiler

• Operating practice improvements

Application : Energy savings in steam system

Year of investigation : 2016

Key features:

• Replacing existing boiler with high efficient once-through boiler

Optimisation of combustion air to fuel ratio

Energy and cost saving:

| Details | Existing | Recommended |
|----------------------------|--|---------------------|
| Steam system | Natural gas fired: 850kg/h x 2units | Once-through boiler |
| Efficiency level (%) | 91.4 | 94.9 |
| Efficiency improvement (%) | | 3.5 |

Note:

This report is an example for investigating the potential of application of Japanese low carbon technology (LCT) in Indian industries. Once-through boiler is the LCT which can generate greater benefits in steam generation system in industries.

