Upgradation/Modernization of Dairy Plants for Improved Efficiencies and Food Safety

A large number of dairy plants were established in seventies and eighties under Operation Flood I and II. These plants varied from 1 LLPD capacity to 4 LLPD and were having liquid milk processing facility or functioned as feeder balancing dairies having 10 TPD milk powder plants and *ghee*/butter manufacturing facility. These were basically manually operated plants using technologies prevailing during that period. While some of the plants have expanded and have switched over to modern technology, many of these plants have expanded their capacities without changing to new technologies available today.

In the present scenario of business competition, it is necessary to maintain the plant operational efficiencies at high levels so as to minimize processing/manufacturing cost and conform to food safety standards. In order to implement the same, NDDB has set up a team which commenced the study of existing plants. The team is submitting the report for the up-gradation/modernization of the plant along with cost estimates and payback period.

The study has been focused mainly on:

1. Process plant automation for reducing milk handling losses/utilities consumption/manpower requirement along with ensuring improved product quality and food safety.

2. Modernization of refrigeration plants including automation for high efficiencies/low maintenance resulting in savings in electricity and water consumption.

3. Introduction of agri-waste (briquettes) based boiler and condensate recoveries from plant for reduction in cost of steam generation.

4. Introduction of use of solar energy for preheating boiler feed water/steam generation/electricity generation.

5. Study (Process/Refrigeration/Steam Generation plants) and making recommendations for improved plant operational efficiencies and low maintenance.

The Presentation will highlight the new technologies being adopted in new projects under execution and the plant studies carried out by NDDB.