

Cold chain monitoring – HACCP

Companies that process dairy products, use milk as the main raw material for their production. It is extremely important that milk must be collected, transported and processed under specific temperature conditions that will guarantee that the product is in excellent shape and no vitiation occurred.

Originally, milk is produced in farms spread around the countryside, where big collection tanks exist to gather the locally milked product. Every a few kilometers, a central collection point exists, with really big tanks, to gather milk from the farms nearby. So, it is important to monitor the tank temperature in each and any of the farms, as well as in each and any of the central collection points. Furthermore, it is also useful to monitor the milk level in those tanks, in order to schedule an efficient collection plan for the tanker vehicles.



When milk is collected from the central points and is transported to the main industrial facility, the milk temperature is also important to be monitored. Finally, the store temperature in the major tanks located in the factory must be monitored too, as well as the milk level.

The use of an iLOG-GSM and iLOG-LAN combination is the solution to the problem:

Each farm will have its own iLOG-GSM to monitor the milk temperature and tank level. Furthermore, each central collection point will have its own iLOG-GSM to monitor the milk temperature and tank level, too. Finally, each tanker vehicle will carry its own iLOG-GSM to also monitor the milk temperature and tank level. At all cases, the readings will automatically be transmitted, on predefined time intervals, using Internet access via GSM to send data files to multiple Email accounts or FTP sites. At the same, alarms will be immediately transmitted via the GSM network to multiple SMS recipients to take immediate action, i.e. maintain the cooling system, or call the tanker vehicle to collect the product.

Each major tank in the factory will have its own iLOG-LAN to monitor the milk temperature and tank level, as well as parts of the process sequence to guarantee the well being of the product. The readings will be automatically transmitted, via wired or wireless LAN, to send data files using Internet to multiple Email accounts or FTP sites, or to control the iLOG-LAN units remotely by the use of a local PC.

This way, crucial information on milk is always in hand, regardless of how far the farm or the collection point is actually located, while immediate alarming allows technical personnel to handle maintenance and control.