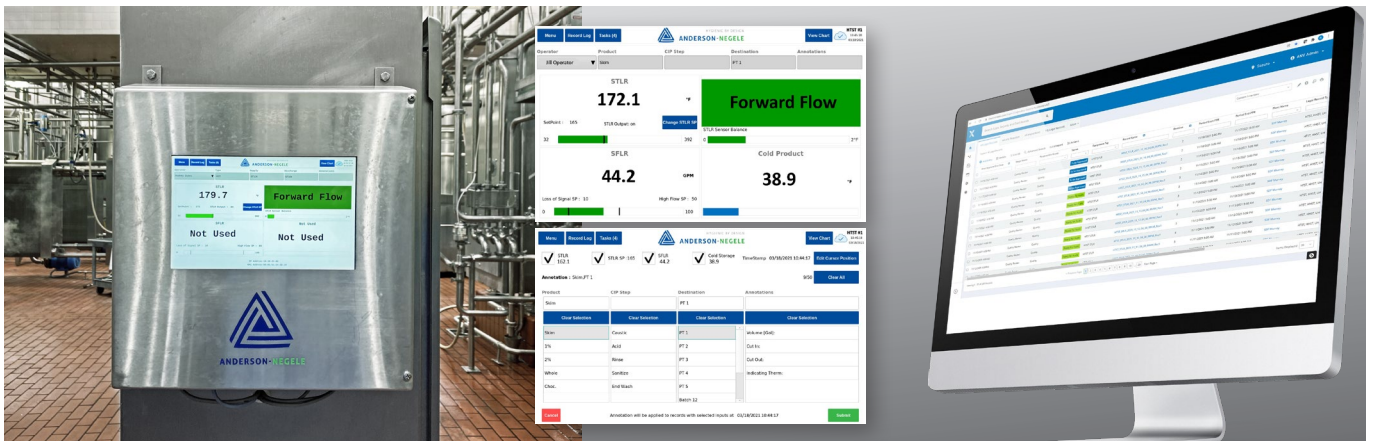


Case Study: Quality Manager Feedback on PPR & Legendary™ Solution
FOOD

Customer Feedback: Optimized Quality Assurance through digital Process Monitoring with PPR & Legendary™

In most Grade "A" dairies, Quality Assurance (QA) has to collect, review, approve and store paper records to comply with the Pasteurized Milk Ordinance (PMO). These manual steps usually take considerable time and effort from all functions – operators, supervisors and QA – to meet all requirements. The new Paperless Process Recorder (PPR) with Legendary™ cloud software offers a digital solution to make these processes more efficient while remaining PMO compliant. Learn here how the QA managers of a dairy plant and of a cheese plant evaluated the digital transformation with PPR and Legendary™ after intensive testing in their live production environment.

Application 1: Dairy plant

This dairy in Kentucky, subsidiary of one of the leading dairies worldwide, specializes in processing and packaging fluid milk, and extended shelf-life products. With multiple HTST, UHT, Storks and CIP systems running constantly, and paper records being generated for each shift QA spends a lot of time collecting and reviewing up to 40 records per day. In a pilot test run, this dairy installed one PPR with Legendary™ for evaluation on their HTST system. QA made direct comparison against the previous paper-based solution and summarizes the experience as follows:

- **"The time saved for operators, supervisors and QA is considerable"** as manual steps are no longer required and QA staff does not have to walk across the plant to collect charts, and handle heaps of paper.
- **"There are no more wet or damaged charts. The annotations are digitally recorded and therefore always easy to read."** Data analysis is faster and more accurate than before, as data quality is much better. QA no longer needs to be on site to pick up the charts, they can send queries to the operators through Legendary™. The operators can respond and add additional annotations using the PPR touchscreen display.
- Data collection is more reliable and secure. **"Mechanical failures of pen arms, motors and issues with ink cartridges that interrupt process recording are things of the past."** PPR records data 24/7 and makes them available in Legendary™ in an industry-proven secured way.
- Archiving is easier. **"There is no longer a need to store shelves full of paper, and if an auditor requests charts from a specific process or date, they can be retrieved in seconds"** using the Legendary™ software.
- **"Our authorized staff has access to the data from any mobile device and from any location."** For example, a QA manager was able to view and approve process records remotely during an absence from the plant.

Application 2: Cheese plant

This medium/large cheese plant in Upstate New York is one of many production sites of a leading international group. When the Quality Assurance Compliance Manager heard about the possibilities of digital process monitoring, he installed one unit as a redundant recorder on their HTST pasteurization process. This allowed a parallel monitoring for direct comparison between the traditional paper charts and the new, digital solution.

For the moment the goal of the QA team is to become familiar with and evaluate the new PPR and Legendary™ solution. Review, approval and auditing of the records is not yet carried out in Legendary™ on a regular basis. However, since the unit is installed in parallel in current production process, the QA manager can give profound feedback on the experience. First impressions are very positive:

- **"The startup was very easy. Having PPR configured out of the box saved us time."** Thanks to a very intuitive set-up of the device, a clear documentation, and the support from the Anderson-Negele team the monitoring system was installed very easily.
- **"We got this product working quickly."** Even though the digital workflows need a different approach and a change in work customs, it was easy for the team to start operating PPR and Legendary™. The digital processes are easier and faster to learn than the manual operations of paper chart recorders, the annotations easier to read than the hand-written notes on paper charts, so all the changes were only to the better for the entire team.
- Shortly after the installation a plant incident occurred, and **"the system has already paid for itself."** The QA team experienced a chart gap with their paper record. Following that event QA provided the Legendary™ record for the same time period to the state inspector as proof that the HTST temperature was still above the setpoint during this event. **"This helped us to avoid a potential recall".**

Products used in this application

PPR Paperless Process Recorder



PPR is a PMO-compliant digital recorder system that can be used in Grade "A" pasteurization, CIP, COP, raw and sterile silo monitoring and in general any application that requires monitoring of process parameters like temperature, flow, pressure, level, conductivity, turbidity etc.

Legendary™



Legendary™ is a cloud-based software that securely stores records from all PPRs of a plant in a single location. It allows authorized persons to conveniently access, review and approve those records remotely from the office desk or any other location using any web-enabled device all while meeting PMO compliance

System Features

- 10" touchscreen display
- Pre-configure system information like operator list, product types, tank or silo list etc.
- Create and select from list of common annotations
- Scroll through all historical trends in local PPR display
- Internal redundant storage for data (up to 7 years) and charts (last 100 days)
- Unlimited cloud storage for both data and charts
- Data encryption during transmission to backup servers, preventing interception or falsification of records
- NEMA 4X enclosure

System Advantages



- » Create audit ready digital records that meet both your internal and PMO requirements
- » Streamlined annotation and approval workflow for both on-premise PPR and cloud-based Legendary™ software
- » Operations team can quickly add consistent digital annotations which are easy to read
- » Supervisors, quality team and PCQI can use Legendary™ to remotely review records, request additional notes from operators, and approve records