Quality management & control in bottling plants

Knowledge transfer & good practice

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La qualité maîtrisée

The correct operation of a bottling plant is in no way limited to technical expertise with the variety of installed systems.

Quality Management and Control are key activities in a bottling plant.

Quality Control involves inspection and verification of the product but this alone is not enough…

Quality Management focuses on anticipating and preventing quality issues before they arise, rather than reacting to issues discovered through Quality Control.

- To head towards continuous improvement.
- To meet the customer requirements.
- To meet the regulations at all the levels.
- To maintain constantly high quality of the products.
- To prove products meet the regulations & quality standards.
- To understand and focus where are the critical points in the process.
- To take always preventive actions to avoid quality issues.
- To identify issues before reaching a critical level.
- To manage the right operations when some parameters show out-of-specs results.
- To be able to take the right decisions in case of quality issue before the products are on the market.

The fruit of deep knowledge & experience

Our knowledge and experience are **specific to the drinks bottling industries** where producing **CSD**(1) or **bottled water** are very different processes.

Building this experience has taken time and has developed through troubleshooting problems and seeking solutions under pressure.

Serious quality issues can cause **damage** to your brand, as well as financial **loss**, if not managed properly. A lack of specific experience can lead to poor management of quality issues.

In order to meet the key stakes of Quality Management in bottling activity ICE proposes:

- **to reduce the time to build-up the specific knowledge and the experience** of your Quality Management & Control team;
- **to roll-out proven good practices** from the beginning.

ICE's Quality experts

Evangelos TROGADIS

- Quality Manager and Factory Manager for 4 years in bottling industry.
- Average more than 25 Quality missions per year, such as audit, expertise, problem solving, process improvement, water saving, training and quality management in more than 50 countries.
- Quality Manager in ICE since 2003.
- Internal Quality trainer in ICE since 2008.

Georgios MANTIS

- Quality Manager for 5 years in water and Carbonated Soft Drinks bottling industry.
- Safety technician for 2 years.
- Lab Expert for 15 years with lots of missions for lab facilities installation, audit, expertise, problem solving, training and quality management.
- Quality trainer in ICE since 2008.

Knowledge transfer & experience build-up methodology

The content of this mission is adapted to:

- each customer, each team and plant
- each production type and regulation frame.

Action 1: survey

- Questionnaire to QC[2] team
  - identify the skill level of the QC team and the existing practices and procedures in terms of QC.
- Questionnaire to management
  - identify the level of understanding of the quality stakes and the objectives of the management.

Action 2: understanding systems and methods

- Flow sheet / PID
- Analyses, procedures and historical data
- Organization to manage Quality activity.

Action 3: prepare skill transfer program

- Specify objectives with the customer management
- Define the program and plan training
- Organise interviews before the site visit.

Action 4: roll-out skill and experience transfer

- Complementary theoretical training
- Practical application with operators and managers
- Knowledge transfer and good practices
- Review & update plans, tools and procedures.

Action 5: prepare a list of recommendations

- Feedback to the management
- Recommendations and priorities
- Propose next steps in the follow-up.

Action 6: maintain contact

- Answer questions and help in specific tasks
- Provide support & advice to the QC team.

Action 7: on-site regular visits

- Review the improvement of practices
- Verify how recommendations have been implemented
- Complementary skill transfer
- Propose modification & optimisation of relevant practices.

(1) CSD: carbonated soft drinks

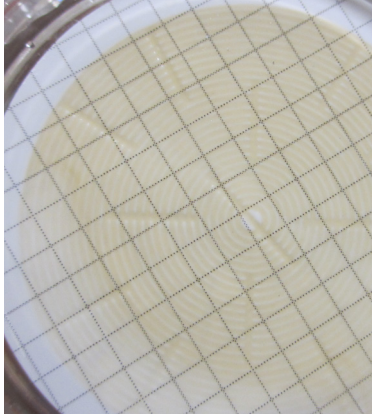
(2) QC: Quality control

Topics addressed

- Water treatment (in details according to the flow-sheet of the plant)
- Water treatment design requirements according to the local and international standards
- Sampling plan (bacteriological and chemical analyses)
- HACCP plan
- Water saving
- Upgrades and improvements
- Quality control and assurance methods
- Chemical and bacteriological analysis methods & reading of results
- Cleaning and sanitation methods
- Preventive and curative CIP, passivation
- Laboratory practice
- Water Treatment extra training on site regarding Quality management
- Case studies & troubleshooting.

Some topics can be associated to a specific group of operators/ managers or to a specific area to improve:

- Tools: HACCP, GMPs, statistical process control, Quality audit on site to identify gaps
- Water treatment: sampling plan, sanitation, operation parameters, critical limits
- Microbiological: GLPs, micro-organisms of risk, bio films, analysis methods, lab practice
- Chemical: bromates, specific ions, remineralisation
- Organoleptic: sensorial tests, taste, odour.



The ICE Quality team combines **deep knowledge** and **long experience** in Quality management. Our methodology of transferring those principles to your factory team guarantees the continuous improvement of the entire process.

Moreover, it is a powerful tool that helps you to head towards the ultimate target of having **zero defects** in the production.

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