

First Key's Quality Management System (QMS)

A program to assure quality against the potential adverse cost of:

- Negative consumer reaction to physical quality defects such as variable color, unstable head, lack of clarity, poorly aligned labels and other package defects.
- Consumer turnoff due to unpleasant sensory character such as oxidation, infection, and unbalanced sensory attributes.
- Expensive (and embarrassing) product recalls.
- Lost sales volume due to defective product.
- Lost goodwill due to corporate and brand name association with defective products.
- Employee frustration due to uncertain quality policy.

First Key has developed a simple low-cost QMS for regional and craft operations. Following is a brief introduction to the program.

"We were aware of First Key's expertise in developing, implementing, and post-auditing Quality Management Systems (QMS) in large scale brewing companies but, as a micro brewery, we needed a QMS that took into account our small size, modest budget, level of complexity, and capability. I was most impressed with First Key's ability to comprehend smaller-scale operations, to work with our people, and mutually develop a manageable system of policies, procedures, standards and quality testing to ensure that our plant operations are conducted in a consistent "high-quality" manner. An excellent job! The management team at VIB is extremely pleased with the QMS program developed by First Key."

*Barry Fisher
President
Vancouver Island Brewing Company*

Quality Management System (QMS)

- A system for Management and Assurance of product quality.
- Provides a statement of **Quality Policy**, and details procedures and methods by which the policy is to be adhered to. Its also sets out **quality goals** and how they will be achieved.
- Defines **responsibilities** for each manufacturing stage and product quality.
- Defines **actions** of what is to be done at each quality-critical manufacturing stage.
- Lays out standard, systematic method for **handling quality issues** (e.g. out-of-spec product).

QMS Structure

Classic QMS starts with a strategic statement of the company's quality policy / philosophy. It then outlines the specific procedures and instructions of who does what, when, where and how. This includes instructions on how work is done, sampling plans, reporting format, specifications, recipes, corrective actions, and laboratory analytical methods. These are laid out in a **Technical Manual** for each plant.

Technical Manual Format

1. Introduction – contains, QMS definition, rationale
2. Quality Policy – a statement of management's quality commitment as well as the policy and specific quantified quality goals.
3. Organization – shows what central office and plants relationship regards quality is as well as individual responsibilities.
4. Description of Process Unit Operations - contains specific focus on quality-critical operations and activities. The operational units may include:
 - 4.1 Plant Overview
 - 4.2 Raw material receiving and storage
 - 4.3 Malting Plant
 - 4.4 Brewhouse
 - 4.5 Yeast Management

- 4.6 Fermentation
 - 4.7 Maturation and Stabilization
 - 4.8 Packaging (Bottling, PET, Canning, Kegging)
 - 4.9 Warehousing
 - 4.10 Utilities (Steam, CO₂, water, refrigeration)
 - 4.11 Maintenance
 - 4.12 Laboratory (Test equipment, methodology)
 - 5. Specifications – raw materials, in-process product, finished product.
 - 6. Sampling plans – for all raw materials used, and at critical points in the process
 - 7. Analytical – microbiological, chemical, packaging, and sensory.
 - 8. Recording Systems
 - 9. Reporting Systems – Operator, Supervisory, Management, Central Office, Purchasing, and Licensed partners. Also outlines which statistical techniques are to be used.
 - 10. Non-conforming Products – details how to resolve out-of-spec issues.
 - 11. Education and Training – outlines prerequisite credentials of those responsible for quality.
 - 12. Post Audit – describes periodic system for assessing if QMS is functioning properly.
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First Key is an independent consultancy that focuses on the brewing industry. We operate with the highest professional standards for quality of work and confidentiality of client information. If we can assist you to develop and implement a QMS program for your brewery, please contact us.

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