

ISO 9000 AND CONTINUOUS IMPROVEMENT AT CHH FORESTS LIMITED KINLEITH REGION

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Kinleith Region Scope:

1. Area 145,000 hectares.
2. Supply through direct harvest plus trading - a total of approximately 4 million tonnes per annum.
3. Work force 140 salaried staff and a contract work force of over 900.

What is Quality?

There are many definitions but two of the simplest are:

1. The features of a product or service that affect its ability to meet a customer's needs
- and
2. Fitness for purpose on a reliable and adaptable basis.

In short, giving customer satisfaction.

To maintain customer satisfaction, Kinleith Region must be continually improving the product or service that it supplies. In order to achieve consistency and improvement. It must not be left to luck or chance.

What is Quality Assurance?

Standards have to be set which everyone follows. This is where the term quality assurance comes in. The definition used in Kinleith Region is; "the planned and systematic approach required to provide confidence that a product or service will give customer satisfaction." In other words, the approach to quality must be properly planned and not left to individual interpretation. This normally means having written procedures for the service being provided to ensure a consistent approach by everyone involved. This is known as a quality system. To be fully effective,

quality assurance systems require periodic reviews to ensure that service levels have not eroded with time and changing circumstance.

History:

During the late 70's, early 80's there was a lot of interest in NZFP in a number of management systems - eg Louis Allen; the company tried a range of "improvement" programmes such as the Duran program and were led through some while they were popular at that time. The company purchased and worked through all of Demming's 14 video tapes (Demming was an American quality Guru) which purported to be a step by step guide to quality and improvement.

These were chastening experiences and for a number of reasons these programmes failed and were abandoned. In retrospect Kinleith Region learnt a lot about the benefit of having a clear game plan and the need to keep projects focussed, small and simple and directly involving all staff.

In the mid 1980's, senior company managers attended the Cambridge Corporation seminars in Japan, to study productivity and quality improvement the "Japanese Way". Virtually all of the success stories in Japan had a high degree of employee involvement at all levels within the organisation. This was exactly what NZ Forest Products was looking for. The company wanted any improvement programmes to be self perpetuating. If they had to be constantly driven from the top, (which is not the same as being enthusiastically led from the top), they would fail. The "Kaizen" approach, which uses a series of straight forward techniques to collect and analyse data, in a philosophy of continuous small gains, was very attractive after the previous experiences.

Training modules were developed at Kinleith Pulp & Paper which avoided Japanese "buzz words" and dovetailed into the existing culture and focused around problem solving teams.

Total Quality Management:

CHH Forests Kinleith Region total quality management philosophy is focused on the principles of

- continuous improvement
- universal participation
- customer satisfaction.

Continuous improvement has been refined and more fully co-ordinated. Its real success is that the techniques are easy to understand and use, have application to both manufacturing and service groups and allow genuine participation at all levels. Another important benefit is that solutions tend to be low cost because true causes rather than the treatment of symptoms are normally identified and addressed.

Continuous improvement is the process we are using to ensure that we meet our customers needs, there are two sub processes within continuous improvement.

1. Policy deployment which is the procedure used for placing priority on the most important issues that the organisation must address. The current issues are service, quality and cost. Each year the managers establish annual targets which take into account the long term strategy of the operation and medium term requirements, along with the success achieved against the previous years targets. The procedure of placing priority on the most important problems results in everyone working on the critical issues.
2. Problem solving is the process of addressing and resolving issues raised in policy deployment. To do this most effectively we must have everyone in the organisation

contributing in their area of expertise. In our experience the person who is doing the work is often best qualified to decide how to make the job easier or more effective than anyone else. The problem solving process allows a team's ideas and experiences to be turned into long term assets - improved practices, training methods, process standards, improved work environment and improved product quality.

The individual steps of this process are to:

1. plan - what we want to achieve
2. do - carry out the improvement
3. check - actual results against anticipated results
4. action - remedial action or correct any imbalance at step three.

The cycle is continuously repeated over time. It is implicit that after each cycle there is a standardisation phase against which to measure future improvements. Unless standardisation is included in any improvement programme gains are quickly lost through the effects of time and staff changes.

Kinleith Region has been working on a number of technical and improvement projects since 1987. We have made, and are still making, big gains in the areas of contract operations - accounting packages - computerised logging and wood supply systems - spraying systems - office accommodation - staffing - quarries - inventory and MIS.

ISO 9002 Certification:

In 1991 we were looking for a way to hold these gains made and underpin our TQM and continuous improvement strategy. We decided that ISO 9002 was a solution. It was internationally recognised, had process control as its basis and the documentation

requirements made good management sense. The standard is compatible with the philosophy of problem solving and continuous improvement. Kinleith Region saw the all embracing approach of the ISO 9000 group of standards as providing a wider standardisation platform than was otherwise possible for its continuous improvement programme.

Selecting a Quality System:

The decision to proceed with ISO 9000 certification was based on the standard's ability to support and underpin the Kinleith Region continuous improvement programme. The Region's Total Quality Management philosophy of continuous improvement also fits directly into the concept of customer satisfaction with focus on service, quality and cost; reflecting timely delivery and price.

When an organisation meets the ISO 9000 standard it is proof to customers both existing and potential, that the organisation has a formal method of guaranteeing product quality which is internationally recognised. It is obvious that any organisation possessing the ISO 9000 standard has a considerable advantage over those that do not. This advantage applies equally to marketing the products and the improved internal efficiency of the organisation. Our major customers are embarking on ISO certification and will want assurances that our products and services meet these standards.

Implementation:

In 1989 the Kinleith Region updated its objectives to be specific to the forest but compatible with Corporate statements of purpose and group mission statements. Recently the Forestry Group has developed a Quality Policy.

This policy focuses on issues of meeting customer standards, maintaining the quality of forest lands and forest produce, managing the environment, research and development, education and training and measuring performance.

The Kinleith Region committed itself to the ISO 9002 certification in March 1992. At this point a personal letter was addressed to each member of the staff and prime contractors from the Regional Manager outlining the reason and the process for undertaking ISO 9002 certification.

Several staff were identified to facilitate the process and they attended two courses at Massey on developing and auditing quality systems. This was supported by approaches to other group companies that were practising TQM. An overview committee of senior staff was established to determine policies, monitor progress and demonstrate senior management commitment. At the same time detailed display boards were erected around the office explaining ISO 9002 and the process. The first ISO project identified for Kinleith Region was the Wood Supply process. The project was designed and a game plan drawn up.

Having learnt from the previous experience with programmes like Duran, it was decided to break the certification into manageable projects. The Region Manager decided the starting point would be with the log making operation and the satisfied customer paying the invoice as the end of the project. He has been resolute in holding this position. This project was launched in June 1992 through a series of seminars to Senior Managers, Superintendents, and then all staff. The only staff member committed on a full time basis to the process is the Documentation Control Officer. It was decided to do this on the basis of advice from Printpac-UEB who had experienced the difficulties if documentation was not given priority over other work.

The next step was to collect and review existing documentation, this took place over the next month.

As this was being undertaken training commenced with all Wood Supply staff and over the next 12 months was to encompass:

- Introduction to the ISO standard
- Communication/Listening skills
- Conflict/Negotiation
- Problem solving
- Facilitating
- Customer focus
- Flow charting
- Auditing

Once the existing documentation had been collected together, documentation of existing processes and procedures began. This was completed in two parts:

- (1) Flow charts, were used to document policies and procedures and to describe operational tasks and processes.
- (2) Job descriptions were written to assign responsibility and authority.

Both flowcharts and job descriptions were carried out by small groups or individuals responsible for the area they were documenting.

Completion of flow charts and job descriptions lead to the identification of gaps in the Kinleith Region management system which were not clearly documented. Once these gaps were identified, small problem solving teams were set up to generate solutions and document processes to improve the quality procedures . The Region also introduced document control to the system. To this end a software package was identified to assist, particularly in the area of log specifications which are of specific importance.

Kinleith Region developed its Quality Procedures Manual at two levels. The overview encompassed the introduction, Regional policies and procedures, definitions and quality policies and procedures. These cross reference to the ISO 9002 standard.

Additional sections cover work practices and operational procedures. In time, these will encompass the other elements of Kinleith Region operations such as forest

establishment and silviculture, forest engineering, resource planning etc.

Auditing:

An important part of ISO 9002 is the internal auditing structure. Kinleith Region used Printpac UEB to conduct two external audits during our first twelve months to give an indication of progress to date. Both times these audits were successful in identifying shortfalls and giving an independent evaluation of the projects progress. Internal audits were commenced about six months into the project and are an integral part of the success of having a documented quality system. Auditors were trained from within the Region - approximately half were from the Wood Supply project and the others from departments in the Kinleith Region.

An internal audit programme typically involved one person from Wood Supply and one from another department auditing a section of the Wood Supply project. An audit takes approximately two hours preparation during which existing documentation is examined and compared to the ISO 9002 standard. This is followed by a field visit and examination of the practice of the documented procedures, lasting perhaps for four hours and finally a written report is completed and a review with the manager of the audited department. Any non compliances or observations documented become part of the document history and must be corrected.

An audit is a method of defining for people, how they are going in the process and the principle behind them is to improve the quality system. Staff undertaking audits also tend to judge their own departments in a more objective light. A further spin off is that staff involved gain a wider appreciation of how the company operates. This is good for both staff development and rotation of staff to other work if required.

The next stage was to have Telarc undertake a pre audit visit to judge what resources would be required by them for

our formal audit. They also evaluated our progress to determine when Kinleith Region might be ready for its formal Telarc audit; which is scheduled for August 1993.

Getting Started:

The most common question from people wanting to implement the standard is, "How do I get started?" The best advice is, "Just do it". We were fortunate to receive this advice from Geoff James, the Quality Assurance Manager at NZFP Pulp & Paper. His advice was to start writing procedures, "because you won't get experience until you actually do something".

Making mistakes and having to back track is part of the normal process. Adopting the, "Just do it" approach, undoubtedly shortened implementation time as it got the project started. An overall plan is important for control but it must be flexible to reflect experience gained during implementation.

Our initial aim to give staff ownership in ISO 9000 has proved successful. In terms of helping to gain and maintain the ISO 9000 standard, everyone was encouraged to assist with improving our existing work methods and with improving the documentation methods within their own work areas.

Q-Base:

Q-Base is a basic cost effective quality control programme developed by Telarc. It is designed to assist small to medium sized businesses in New Zealand to:

- Improve the quality of their products or services
- Increase customer satisfaction
- Reduce the cost of quality failure
- Improve productivity
- Improve competitiveness.

It is based upon a common sense approach to the basic disciplines of quality control backed up by ongoing support services from Telarc.

The Q-Base code avoids jargon and sets out the requirements for an effective quality control programme in a user friendly manner aimed at the small business manager. It was these characteristics that drew Kinleith Region to Q-Base for its suppliers. We recognised that much of our product is moved from the forest to a customer with little direct input by Kinleith Region managerial staff. What was required was a quality system that would ensure that Kinleith Region's product was delivered to the customer with no quality problems.

ISO 9002 was first introduced to Kinleith Region contractors in an overview presentation in October 1992. This consisted of a half day session on quality management facilitated by a consultant. This was followed up with a selection of contractors from all forest operations participating in a day and a half seminar. They were briefed on the principles and background of Q-Base and then spent time developing a generic forestry Q-Base manual encompassing the nine sections of the Q-base code, that is:

- responsibility and authority
- documentation control
- purchasing
- training and work instructions
- inspection plans
- inspection equipment
- inspection status and control of substandard materials
- corrective action
- quality records.

This has been followed in recent weeks by a series of presentations to smaller contractor groups reinforcing the quality management principles adopted by Kinleith Region. Their role as suppliers and our requirements from them to formally adopt a quality system were clearly explained. It has been put to them that the benefits of a quality system such as Q-Base are in their own best interests and that is the reason they should be involved. Advantages to the contractors are - higher productivity and

reduced losses and wastage of time, effort and resources.

Volunteers from these contractor groups will go through the next stage of writing the work procedures for specific operations. These volunteers will be among the first to adopt Q-Base and to achieve Q-Base certification in the Kinleith Region.

Kinleith Region has indicated that an external quality system will eventually be mandatory for suppliers in all our operations. However, the Region will fully support its contractors through this process because it forms a fundamental component of our quality management programme.

Kinleith Region is positive ISO 9002 and Q-Base certification will enable us to more

consistently meet our customers' needs as well as enabling us to continue to improve and hold the gains made in our business in all areas.

TQM Summary:

Our TQM programme involves:

1. A philosophy of continuous improvement.
2. Training.
3. Underpinning the gains with ISO 9002.
4. New initiatives launched from ISO corrective action.
5. Programme to encourage contractors and suppliers into Q-Base.
6. Ongoing maintenance and development.