4400 East Highway 30
Kearney, NE 68847

Gothenburg, NE
Yankton, SD

Application for

The Edgerton Award

for

Quality Improvement

2000
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Describe the organization covered by this application. Include significant business factors, such as primary products and services, major markets (local, regional, national, international), principal customers (individuals, other businesses, government), customer requirements, supplier and partnering relationships, competitive environment and applicant’s position within that environment, types of technology employed, major facilities (location, size, products produced or services provided), employee profile (such as number, education level, union status), award applied for and other factors the applicant considers important.

JA Baldwin moved his filter manufacturing company to Kearney Nebraska in 1953 in search of an available workforce, facilities and a geographic proximity to both coasts of the US. JA was one of the pioneers in creating what has today become a multi-billion dollar industry which supplies filtration products to mobile and industrial equipment markets around the world. JA Baldwin Manufacturing was a small company with 9 employees and annual sales less than $300,000.

After setting up shop in buildings formerly occupied by the Army Air Corp, the business began to grow and expand - within 5 years sales had tripled. Baldwin was known for building a filter for anything a customer could drive up to the front door. In 1966 a major fire destroyed a majority of the facilities causing JA to literally rebuild from the ground up. The rebuild included not only buildings, but also much of the equipment which JA designed himself. Each passing year saw new sales records as more customers learned of JA’s reputation for providing high quality, heavy-duty products. Ferrari was among JA’s early customers.

In 1981 JA Baldwin Manufacturing was purchased by JL Clark Corporation (now CLARCOR) as JA’s health was failing and there was no one left in the family to take over the business (JA’s heir apparents’, son and son-in-law, were killed in an airplane accident in 1972). With CLARCOR’s financial support the business continued to grow and expand. From a few part numbers in 1953, over 2100 products were available at the time of the CLARCOR acquisition, today the number exceeds 4800 for applications including air, coolant, fuel, hydraulic and oil filtration.

Baldwin has continued to grow with new customers and markets, products and acquisitions. In 1986, Dahl Manufacturing was acquired adding a line of diesel fuel-water separators for specialty markets such as marine. In 1991, Heavy Duty Air was acquired to expand capabilities relating to heavy-duty air filters and a new manufacturing plant was constructed in Gothenburg, Nebraska. 1995 saw the acquisition of Hastings Filters to add to the automotive product offerings, capabilities and manufacturing facilities including a plant in Yankton, South Dakota.
Today Baldwin Filters operates domestic facilities in Kearney and Gothenburg, Nebraska, and Yankton, South Dakota. These three facilities employ approximately 1175 non-union employees. The Kearney facility is home to corporate offices for Engineering, Finance, Human Resources, Marketing, Quality and Sales in addition to our major manufacturing facility. Gothenburg and Yankton house only manufacturing operations with necessary support personnel for other functions.

Baldwin and Hastings brand products for mobile and industrial equipment applications are marketed around the world through distribution facilities in Australia, Belgium, the United Kingdom and the United States. A majority of the business is conducted through more than 2500 independent aftermarket distributors and outlet locations or through OEM dealers such as Kenworth. Manufacturing facilities are also operated under local management in Mexico City, Mexico, Capetown, South Africa and Weifang, China. Additionally, Baldwin manufactures products for OEM and other customers under approximately 165 private label brands such as Detroit Diesel and Fram as examples.

In 1991 the Kearney facility was recognized with the Ford Q1 Award and certified by Thermo King Corporation. All three domestic facilities are registered to both ISO9001 and QS 9000 quality system standards. The manufacturing facility in Mexico City is registered to ISO9002 with work underway in China for similar registration.

The key business factors which have led to Baldwin’s growth and standing in the market place are:

- Broad range of products for many applications
- Product quality, performance and warranty coverage
- Customer service
- Delivery performance (product availability)
- Vertical integration and internal capabilities
- Technology (ability to innovate and offer product choices)

These business factors continue to be the guiding principles and measures of business success for Baldwin Filters. Superior performance in these arenas will continue to allow the market share growth that we desire. This application for the 2000 Edgerton Award for Continuous Process Improvement is a testament to the progress our company has made in its’ nearly 50 years as a Nebraska company. With this application, we also remind ourselves of the ongoing commitment and responsibility to continue the philosophies for continuous improvement and corporate leadership using quality as a key to success for the company, our employees, other shareholders and the communities in which we live.
1.0 Leadership

1.1 Describe how the senior leaders guide the organization in setting directions and in developing and sustaining an effective leadership system.

The overall direction of the company and quality philosophy are outlined in the Mission Statement and Quality Policy, each of which is formulated by the Senior Staff and issued by the President. The Mission Statement was revised in 1999; the Quality Policy has been unchanged since it was issued in 1995.

**Mission Statement**

Our mission is to be the supplier of choice in the global filtration marketplace. We will achieve this goal by providing innovative product and system solutions that meet the needs of our customers, while caring for our most valuable resources: our employees, shareholders, and the communities and environments in which we operate. The products and services we offer will provide world class quality, true heavy-duty performance and exceptional value that differentiate our company from the competition.

**Quality Policy**

Baldwin Filters is committed to meeting the requirements of our customers. Our goal is to provide on-time delivery of defect-free products and services.

Baldwin Filters uses a traditional management organization, led by the President and his Senior Staff, to set direction and manage the company’s activities, Figure 1.1.1. Starting with the strategic planning process conducted by the Senior Staff, goals and objectives are set forth and rolled out to department managers and supervisors, and other employees for action planning and implementation. Short and long term plans are supported through allocation of required current resources or incorporated into future allocations through financial budgeting. Various follow-up activities are undertaken to assure conformance to the strategic plan.

![Organizational Chart](image)

**Figure 1.1.1**

Organizational Chart

Senior management demonstrates leadership through many hands-on activities and open door policies for all employees. As a result of strategic planning objectives and other business management activities, senior management leads
or is directly involved with numerous meetings, Figure 1.1.2. Additionally, many other meetings and reviews occur on a daily basis such as department meetings and PEP problem solving meetings which are normally attended by a Senior Staff member or representative.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Chair</th>
<th>Participants</th>
<th>Frequency</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Mtg.</td>
<td>President</td>
<td>Senior Staff</td>
<td>Weekly</td>
<td>Business Update</td>
</tr>
<tr>
<td>Financial Rev.</td>
<td>President</td>
<td>Senior Staff</td>
<td>Monthly</td>
<td>Financial Results</td>
</tr>
<tr>
<td>Anniversary Lunch</td>
<td>President</td>
<td>VP HR Employees</td>
<td>Monthly</td>
<td>Employee feedback</td>
</tr>
<tr>
<td>ISO/QS Rev.</td>
<td>President</td>
<td>Senior Staff</td>
<td>Quarterly</td>
<td>Quality System</td>
</tr>
<tr>
<td>Strategic Plan</td>
<td>President</td>
<td>Senior Staff</td>
<td>Quarterly</td>
<td>Review Plan</td>
</tr>
<tr>
<td>Annual All Employee</td>
<td>President/CEO</td>
<td>All employees</td>
<td>Yearly</td>
<td>Business Status/Direction</td>
</tr>
</tbody>
</table>

Figure 1.1.2

Business Review

Company information is also transmitted to employees through postings on bulletin boards and announcements made in the daily newsletter *Happenings*. *Happenings* also includes daily updates on business performance information such as sales and stock activity as well as a wide range of other items-of-interest with the company or individuals. Announcements from Senior Staff members are typically included in *Happenings*.

Another leadership activity that enhances the company’s well being is involvement with the Filter Manufacturers Council (FMC); an industry trade organization comprised of other North American filter manufacturers. Baldwin has long been an active participant in the workings of this organization and has taken leadership roles of committees for quality, technical issues, cataloging and environmental. Currently the President of Baldwin serves as the Chairman for the FMC as a whole. Baldwin representation was instrumental in formation of the Quality Committee organization to address quality management activities in the industry and begin efforts to share benchmarking comparisons amongst this group of competitors.
1.2 Describe how the organization addresses its responsibilities to the public and how the organization practices good citizenship.

Care for our communities and environment is specifically stated as a segment of our Mission Statement. This commitment extends to products, operations and support for employees and their communities.

Product designs are always mindful of safety and environmental issues. Several years ago, Baldwin was one of the first manufacturers of oil filters to discontinue the use of terne plated steel components when it was discovered that lead could leach from the terne plating and result in possible contamination when used filters were improperly disposed of. US patents have been obtained for an environmentally friendly filter system, which offers end users a highly and easily disposable product. Similarly, a new product is currently under development that will solve a major environmental compliance problem/issue for large diesel engine manufacturers. We also offer our distributors a “Filter Lease” program for single-source purchase/delivery and pickup/disposal of used oil filters for their customers. This value-added service not only offers our distributors an additional sales tool but also offers end users an easy and cost effective means of also helping protect our environment.

At the manufacturing operations level, Baldwin Filters shows its commitment to applicable local, state, and federal environmental regulations in the following manner.

First, there is an organizational position dedicated solely to environmental management. This environmental engineer focuses on air, waste, and water environmental issues that affect the manufacturing activities and could affect the local community if not handled properly. By having such a position, the day to day environmental issues can be responded to and prevent potential problem areas from going unnoticed. Many procedures (i.e. waste disposal and spill response) and teams (i.e. spill response team and storm water management team) are in place, not necessarily because the regulations mandate them but because it makes good practical sense to have them.

Furthermore, Baldwin Filters has implemented several pollution prevention and/or reduction projects over the years that have resulted in waste being recycled, reused, or reduced. Some examples of these include:

- Cardboard recycling (Cardboard is recycled instead of going to the landfill.)
- Coolant recycling (Coolant that was historically used once then disposed of, is now recycled.)
- Powder paint reuse (Paint booths are equipped with units to capture the overspray for reuse.)
- Wood pallet recycling (Pallets are sent to a vendor who grinds them for landscaping uses.)
• Volatile Organic Compound (VOC) air emission reduction (By going to powder paints instead of using solvent based liquid paints and by installing pollution scrubbing devices, VOC air emissions have been greatly reduced.)

Finally, Baldwin Filters actively consults and interacts with others in the environmental industry to keep abreast of the ever-changing regulations. Examples of this include membership in the Nebraska Safety Council, NICE (Nebraska Industrial Council on the Environment), Keep Nebraska Beautiful Waste Material Exchange Network, the LEPC (local emergency planning committee), and a local area environmental, health, and safety roundtable which Baldwin Filters was instrumental in forming. This dedication of time to these councils, committees, and networks indicates the high premium Baldwin Filters places on environmental compliance.

The company has a long history of giving and supporting a wide range of community activities and projects such as the United Way, Leadership Kearney, and local schools including the University of Nebraska – Kearney, KHS, KCHS, GHS, YHS and over half a dozen small schools in surrounding communities. The Baldwin family once made a 5 million-dollar donation to the Mayo Clinic. The company makes ongoing donations averaging approximately $100,000 per year through the CLARCOR Foundation to recipients such as the YMCA, Heart Association, Red Cross, Boy Scouts, Kearney Community Theatre, and Shriners. Countless Baldwin employees are involved with local church groups, educational organizations, and other groups such as scouting, Habitat for Humanity, etc. The company provides summer jobs for college-age students of employees and also conducts internships with students at UNK. We also participate in career fairs and School-to-Work programs which allows high school students the opportunity to “shadow” employees thereby helping them with college decisions or identify employment opportunities immediately after high school. These activities with students not only help the students but also provide the opportunity for Baldwin to attract valuable, future employees. Employees belong to a wide range of professional organizations such as APICS, ASQ, SAE, SHRM, and SME.
2.0 Strategic Planning

2.1 Describe how the organization sets strategic directions to better define and strengthen its competitive position. Also describe how the strategy development process leads to an action plan for deploying and aligning key plan and performance requirements.

The growth of the company in traditional markets and expansion into new markets (e.g. Hastings automotive brand) has allowed the strategic planning process to evolve to a higher level over a several year period. What once was merely the preparation of a simple annual budget and 5-year forecast, the process now is very comprehensive and dynamic. Strategic planning begins with an in-depth analysis of the internal and external dynamics effecting our markets and products, and ends with a complete plan including goals, objectives, budgets and action plans. Action plans are reviewed monthly to assure that milestones are being met, quarterly to review and revise the strategy and objectives, and yearly to re-assess and update the entire strategic plan. The purpose of the strategic planning process is to identify sound and appropriate course and direction that will optimize the company’s future potential and to sharply focus resources in support of increasing sales, profits, and returns to all stakeholders.

The senior staff and multiple employees in the organization participate in gathering data and performing various steps of the planning process including:

External situation analysis includes for example:
- Market segment analysis to determine best market opportunities.
- Evaluation of major competitors.
- Assessment of state of the art of technology in the market.
- Supplier market assessment.
- Current economic situation analysis.
- Regulatory environment analysis.

Internal situation analysis includes:
- Financial analysis (Balance sheet, Income statement, profit).
- Economic value added (CLARCOR value added, CVA).
- Service level and fill rates to all markets and channels.
- Customer satisfaction results.
- Productivity, scrap and efficiency of the production process.
- Employee satisfaction, skill level and training programs.
- Time-to-market for new products benchmarked against competition.
- Cost reduction.
Assumptions:
- For each market segment including threats, opportunities, rate of growth projections, profit projections and potential for product displacement.
- Competitive assumptions of strategic moves, market position and market share, and projections of significant developments which may effect the level of competition in the market.
- Future developments in technology and their effects on the markets served.
- Assumptions of future regulations that may have importance to our business.
- Perceived opportunities that merit further exploration for net value, probability for success, anticipated management effort and downside risk.
- Perceived threats and their potential impact on the business.

From this information, a prediction of what the industry will look like in the near future (5 years out) is made. This five-year outlook is then used to develop a winners profile. This profile projects what capabilities and attributes a “winner” would need to position the company for success into the future. Finally, strategies for each market segment are developed. The strategy session leads to development of goals and objectives followed by more specific action plans for each objective.

The action plan begins with the planning team assigning a leader and back up. Each leader and back up is responsible for writing a draft of the plan for review and approval from the President and staff. The action plan leader and backup assign team members from functional areas that will have significant involvement in the execution of the plan. The action plan team identifies action items necessary to accomplish the objective. Final action plans are then assigned time lines and budgets and are implemented. Actions plans are monitored monthly by the plan leaders to keep actions, people, and dates on track as well as resolving any shortfalls and modifying the plan as needed. The planning staff meets quarterly to review assumptions, review and revise strategies, goals and objectives and reschedule action plans to keep them on track. The President and staff meet yearly to reassess and update the entire strategic plan, and to set new objectives in light of developments in the environment in which the business operates.

2.2 Summarize the organization’s strategy and action plans and how these are deployed. Include key performance requirements and measures, and outline overall human resource plans. Estimate how the organization’s performance projects into the future relative to competitors and/or key benchmarks.

The strategic plan is a tactical extension of the company Mission Statement. The strategic plan is communicated to all personnel to degrees appropriate for individual’s level of involvement. A meeting is held at each facility to
communicate the goals and objectives for the current year. Field sales personnel are similarly informed at national and regional sales meetings.

The current strategic plan consists of 8 long-range goals and 7 specific objectives relating to these goals for completion in the year 2000, Figure 2.2.1.

<table>
<thead>
<tr>
<th>Goal</th>
<th>2000 Objective</th>
<th>Action Plan</th>
<th>Key Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product development leader</td>
<td>Significant product innovation</td>
<td>Develop soot removal product</td>
<td>In production by 9/1/00</td>
</tr>
<tr>
<td>Transaction technology leader</td>
<td>E-Commerce</td>
<td>Implement package</td>
<td>Implemented by 12/31/00</td>
</tr>
<tr>
<td>Leading market share in HD A/M</td>
<td>Increase off-highway sales (1 m/s point)</td>
<td>Develop target customers &amp; programs</td>
<td>Obtain sales goal by 12/31/00</td>
</tr>
<tr>
<td>OEM supplier</td>
<td>Primary supplier to tier one OEM</td>
<td>Develop customer &amp; product</td>
<td>Secure customer by 12/31/00</td>
</tr>
<tr>
<td>Positive CVA</td>
<td>Budgeted CVA</td>
<td>Positive CVA Impacts</td>
<td>Meet budget by 11/30/00</td>
</tr>
<tr>
<td>Quality workforce</td>
<td>Work environment enrichment</td>
<td>Employee satisfaction survey and follow-up</td>
<td>Action Plan Outlined by 4/1/00</td>
</tr>
<tr>
<td>World class quality</td>
<td>Edgerton Quality Award</td>
<td>Submit application/host site visit/follow-up plan</td>
<td>Receive award 5/00 Improvement Action Plan by 7/1/00</td>
</tr>
<tr>
<td>Market intelligence leader</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2.2.1**

Strategic Plan Goals and 2000 Objectives

Human resource requirements relative to objectives are identified from within the workforce or additional staffing is obtained to meet needs. For example, an engineer was moved into the Sales Department to work as the Sales Engineer with responsibility for Detroit Diesel in order to increase the level of business with this tier one OEM. In another example, several design engineers were hired to increase new product output and product innovation abilities. In some instances, outside resources may be utilized to meet human resource needs.

The planned future performance resulting from implementation of the strategic plan and its successors is to build continuing market share until a dominant position is obtained in desired market segments. Information available through trade organizations and the public domain will communicate results.
3.0 Customer Satisfaction

3.1 Describe how the organization seeks feedback to determine longer-term requirements, expectations, and preferences of target and/or potential customers and markets, to understand and anticipate needs and develop business opportunities.

Baldwin Filters has steadily gained market share by anticipating market changes and new business opportunities. This growth has been possible due in part to our excellent information network. Information comes from several key sources; the largest and most experienced sales force in the industry, an active market research function, participation in the industry’s major associations, customer surveys and a close relationship with our customers.

While the competition has reduced costs over the past decade by cutting their sales forces, Baldwin Filters has committed the resources necessary to build the largest sales force in the industry. Baldwin boasts not only a large Aftermarket sales force, but also sales representatives specializing in National Accounts, OEM Accounts, and Private Brand Accounts. Our salesmen are filtration experts, and work with our customers to anticipate and fulfill their needs. They have an active relationship with personnel in Kearney, and are therefore able to direct market information to the proper internal support person. Formal monthly reports distributed amongst key internal personnel are another means of communicating market and competitive information as well as specific customer information. Annually, the sales force gathers for an intensive three-day session which includes training, presentations by Kearney personnel, information sharing and motivational speakers. Regional Sales Managers meet quarterly to share information with members of management. Each region also holds quarterly meetings to discuss issues, plan local strategies and share information. The International Sales Representatives also meet annually to share information and ideas. The close relationship between management and the sales force ensures that the necessary individuals have access to vital market information.

Baldwin Filters places a strong emphasis on the importance of market research. Baldwin purchases the latest market data to stay abreast of market trends. Marketing publishes a weekly report showing relevant press releases. As a result, management members in many departments are familiar with the market climate and competitive pressures. Baldwin is an active member of the Automotive Market Research Council and participates in the Heavy Duty Aftermarket Committee. We have access to their forecasts, and can share insights with the marketing departments from many large automotive and heavy-duty related companies.

Baldwin Filters is a member of the major industry associations, namely, CFS, HDDA, AWDA, FMC and ASIA. By attending these organizations’ meetings, Baldwin is able to keep abreast of the latest market news and forecasts. These
organizations are able to accurately predict changes in the industry which will affect the manufacturers, such as E-Commerce and distribution consolidation.

Formal customer satisfaction surveys have been conducted to measure this important characteristic. The first surveys in years past were mailings. In 1999 the process was expanded in order to gain a larger response rate and additional customer input. First, surveys were solicited through the use of the Internet. Customers who did not respond were then sent mailings. Telephone calls from customer service representatives were used as the final means of contacting customers for feedback. This expanded process also includes telephone contact with every customer at least once a year through the Customer Service Representatives in order to continue this means of customer feedback. Baldwin also participated in an industry wide customer satisfaction survey conducted by the Filter Manufacturers Council which allowed us to benchmark our results against those for the industry as a whole.

Establishing a close relationship with our customers allows open communication and keen insight into their needs and expectations. As well as constant customer contact from our sales force, Baldwin also maintains a formal relationship structure with its Distributor Council program. Twelve key independent distributors meet annually to offer formal feedback on key issues posed to them by Baldwin management. This feedback is analyzed and responses are formulated. Valuable industry insight and information on the role that Baldwin is expected to play for our distributors is gained. Baldwin customers provide feedback that is included in our decision-making process; E-Commerce and packaging changes are recent examples where Baldwin customers were asked to help set the company’s direction.

The information gathered from these sources has allowed Baldwin to seek out new market opportunities and adapt to industry changes. For example, in 1995 Baldwin was first to predict a shift in the trucking industry to quick-lube service for on highway trucks. An alliance was quickly formed with Shell Oil and several truck quick lube companies. Today, Baldwin is the filter of choice in nearly every major chain of truck quick lubes. Baldwin also recognized early the potential impact of the trend toward extended oil drain intervals in the trucking industry and responded by introducing a Severe Service line of products. These filters contain filtering media designed to survive in harsh extended usage applications. A potential negative to the filter industry was thereby turned into a positive by reacting early with the introduction of these products. Third, Baldwin predicted early that used filter disposal would become a serious problem for customers. Rather than waiting for legislative action to force a solution, Baldwin implemented a “Filter Recycling Program” which offers customers a turn-key solution to disposing of used filters. Finally, Baldwin predicted the importance of E-Commerce at a time when most distributors had not even logged on to the Internet. Today, Baldwin is preparing to launch an E-Commerce program just as the first customers are beginning to ask for it.
This aggressive pursuit and use of information has allowed Baldwin to lead the industry in responding to the dynamic needs of the market and our customers.

3.2 Describe how the organization determines and enhances the satisfaction of its customers to strengthen relationships, improve current offerings, and support customer- and market-related planning.

Baldwin Filters recognizes the value of our existing customer base. Information sources and processes outlined previously allow us to understand our strengths and weaknesses in the eyes of the customer. We are known for our commitment to traditional distribution, and this commitment has generated significant loyalty from our customers. Baldwin practiced business partnering long before “business partner” became a buzzword. While our competition focuses on price, Baldwin has gained market share by offering a broad line of quality products, superior product and service support along with competitive prices. Our ability to deliver on these goals has been the secret to enhanced customer relationships. Customer needs and expectations change over time, and through our information network we are able to anticipate and recognize the changes, and adapt quickly.

Baldwin Filters offers the broadest product line in the industry. We actively research new applications and record customers’ requests, allowing us to prioritize new product introductions. The catalog department attends truck and equipment trade shows to examine the engines and equipment on display. They also make record of calls from customers requesting information for an application we currently do not offer. This information allows Baldwin to continue providing the most comprehensive product offering in the industry. Baldwin introduces in excess of 100 new products each year, and currently has the filters to fit over 61725 applications. This is 12670 more than the nearest competitor.

Product and service problems are recorded and corrective action taken. Daily sales reports show shipping and backorder status. When goals for these numbers are not met, corrective action is taken. Product defects are recorded through Service Engineering’s Problem, Inquiry, and Complaint (PIC) process, where defective product is logged, analyzed, corrective action is initiated and a reply is sent back to the customer.

Baldwin understands that the more the distributors’ sales personnel know about filtration and the Baldwin products, the easier it will be for them to sell Baldwin to their customers. Good information and training are therefore critical to the continuing success of Baldwin in the Aftermarket. Baldwin has the most extensive literature offering in the industry. We offer informative pieces spotlighting each of the different product lines and markets, training pieces in the form of audio and videotapes as well as literature, engineering bulletins, and marketing materials. Baldwin sales representatives are trained filtration experts, able to conduct on-site training classes. For more intensive training, we offer Baldwin University, a 2-½ day training session conducted in Kearney. Along with
presentations from the engineering, marketing, catalog, and service engineering departments, the attendees are also given a thorough plant and laboratory tour to further outline and highlight Baldwin capabilities. Monthly mailings notify customers of new product introductions and literature. A newsletter is included to inform them of any Baldwin news and remind them of special dates or events.

Baldwin Filters is committed to offering the most comprehensive support to our customers in the industry. Our internal support functions constantly strive toward this goal. Customer Service Representatives are trained to assist the customers in all order- and shipping-related questions as well as basic catalog questions, thus avoiding transferring the customers several times to have their questions answered. They also administer the telemarketing customer satisfaction program mentioned previously. The Catalog Department produces the most user-friendly filter catalog available, the first in the industry to include photos of the filters in the applications section of the catalog. An electronic catalog, which is also available, is a fast, user-friendly program that allows customers to easily find applications and cross reference information. Recently the Catalog and Service Engineering Departments merged resources to form the Catalog / Technical Service Hotline, which can answer both catalog and basic technical questions to further improve customer responsiveness without the need to transfer calls between departments. The Service Engineering Department is able to answer the more technical questions and address all product problems. The Fleet Survey Department assists customers in quoting fleets by providing product application information for the fleet’s equipment. Internal department functions change constantly to meet the ever-changing needs of the customers.

To make Baldwin Filters a vital part of the distributors’ planning process, Baldwin offers a Business Review and Action Plan program to the largest 25% of our customers. This program includes a review of the sales and discount history for the past year, outlines the new programs and marketing materials for the upcoming year, and walks the distributor through a sales and marketing plan for the new year. The District Manager conducts the BRAP review with the key decision-maker at each location, thereby strengthening their relationship.

Baldwin Filters actively maintains a pricing database with competitors’ pricing information. This information is shared with management and the sales force, ensuring that the latest, most accurate information is at their fingertips when the opportunity arises to bid on a new customer. The Baldwin Trade Discount program allows the distributor to partner with Baldwin in bidding on large new customers. Baldwin helps support the distributor in making competitive bids through rebates given to the distributor if the new business is won. This has allowed Baldwin to aggressively pursue new business with existing distribution.

All these value-added services strengthen Baldwin’s relationship with its distribution, enhancing loyalty and maximizing customer retention.
4.0 Information and Analysis

4.1 Describe the organization’s selection, management, and use of information and data needed to support key organization processes and improve the organization’s performance.

Successful management of the company is accomplished in part by the selection and use of appropriate and meaningful information and data. Information directly related to or linked with key business factors is utilized to understand current performance, signal opportunities, gaps or weaknesses, and target improvement opportunities. No area of significant importance is left unmeasured and not understood, however meaningless measures that add no value are not gathered.

The key segments for information collection and analysis include:

- Operations results such as safety, manufacturing productivity, order fill rate, cost reduction.
- Financial results such as gross revenues, operating profit and CLARCOR Value Added (CVA).
- Quality results such as product and process quality, customer satisfaction and warranty, and competitor benchmark comparisons.

Various employees, supervisors, managers, officers and teams within the company evaluate information from these segments on frequencies ranging from hourly to monthly as appropriate. Data is compared to goals, and action plans are outlined where necessary to react to opportunities or avoid performance below targets.

Company information is used on a short-term basis to understand current performance. This information viewed in trend formats is also used with long-term goals to predict future trends in the business and firm up longer term goals and objectives during strategic planning.

4.2 Describe the organization’s processes and use of comparative information and data to improve its overall performance and competitive position.

Information is compared to goals, historic performance results and competitive market information when available. Information is made available to those employees who need to know in order that they may perform their jobs and identify improvement opportunities. For example, Advanced Product Quality Planning teams (APQP) gather data necessary to implement the launch of a new product or process such as similar product warranty performance, machine downtime and repair history, or manufacturing work cell productivity.

Information comparisons may be made to local data, corporate data or national data from competitors or other industry information. Local data is information
generated internally through measurements made in groups such as Accounting, Manufacturing or Sales. Much of the local data is managed and communicated through the centralized management information network available to all locations via the mainframe Hewlett Packard computer and network of personal computers. Internal data is also available to field sales personnel at their respective field offices via the electronic networks. Where appropriate, data may also be published and posted on bulletin boards for employees' information and use. Supplier performance information (quality and delivery) is made available to suppliers on a monthly basis. In some instances, Baldwin performance information is shared with customers. Baldwin performance is compared with the performance of other CLARCOR companies in monthly and quarterly reviews conducted with CLARCOR management. Baldwin results are made available to employees through department meetings and communications in Happenings. Competitor and industry information is obtained through various sources such as public documents, industry reports and trade organizations. This information is used for a variety of purposes ranging from strategic planning to market analysis to product planning.

4.3 Describe how the organization analyzes and reviews overall performance to assess progress relative to plans and identify key areas for improvement.

Data review is conducted in various formats appropriate for the activity being reviewed. For example, manufacturing productivity is reviewed by Line Supervisors on an hourly basis and more fully reviewed with department managers and plant management on a daily and weekly basis. Many activities are reviewed monthly such as financial results, sales, and cost reduction. Some activities are reviewed quarterly such as profit sharing performance and ISO/QS management review. Data analysis may be in the form of line charts, bar graphs, Pareto charts, statistical capability reports, or other means.

Much of the information review and analysis occurs at regularly conducted staff meetings conducted by various managers. The President conducts a weekly staff meeting with direct reports to review staff level activities and objectives. This weekly meeting allows each functional area to surface for review and discussion any topics that may positively or negatively impact the company’s performance such as quality, competitors movements, the economy or internal capabilities. The setting of the meeting allows for immediate decisions and approvals if deemed appropriate. Similarly, other managers conduct the same type of reviews in their organizations. This frequency of review and communication allow the opportunity to be flexible and able to attack opportunities as soon as they appear. The review processes at Baldwin Filters allow us to be organized, efficient, non-bureaucratic and confident that decisions are made in the best interest of the company and its’ stakeholders.
5.0 Human Resource Utilization

5.1 Describe how the organization’s work and job design and its compensation and recognition approaches enable and encourage all employees to contribute effectively to achieving the organization’s performance and learning objectives.

Baldwin Filters believes that high-level employee performance is based on two fundamentals: first, employees must understand what is expected of them and secondly, they must be suitably and fairly rewarded for their efforts. This philosophy is employed throughout the company for every employee from the President to entry level employees.

Performance expectations are outlined for every employee. Written, detailed Position Descriptions for each position define the duties and responsibilities, requirements, and training needs of each job. Position Descriptions are created or updated each time changes take place within the organization. Employees review their individual Position Description with their supervisor and sign a copy, signaling they understand what the job entails and what is expected of them in the job. This method has been used for many years and was updated and modified in 1995 and 1997 to conform to ISO 9001 and QS9000 requirements.

Several employee compensation and recognition methods are employed to support attainment of performance. The company establishes and maintains wage and salary ranges for each position. Salaried employees progress through their range within their respective salary grade by receiving merit increases based on annual performance appraisals. Hourly employees progress to the top of their range by receiving a progression of pay increases every three months, based on the amount of time they have worked in their jobs. Baldwin Filters regularly benchmarks wage and salary grades with other manufacturing companies within the geographic area to monitor compensation packages and ensure fair, equitable and attractive offerings to current and potential employees. Employees also participate in a profit-sharing program which provides pay-outs based on the company’s performance as a whole. Profit sharing was initiated in 1991 and was modified and enhanced subsequently to its present state. When Hastings was acquired in 1995, the program was extended to Yankton employees and is being enhanced as the performance and results from that segment of the organization increase.

The company recognizes and rewards its employees in a variety of other ways. For example, after 5 years of continuous service, and continuing at 5-year intervals thereafter, employees receive anniversary gifts of increasing value. All employees with 20 years of service, and continuing at 5-year intervals thereafter receive an anniversary reception at work with catered refreshments. All employees and retirees with 25 years of service or more meet annually at a local establishment for an anniversary dinner paid for by the company. Employees are
also recognized for their contributions to cost reduction efforts. An employee who achieves a significant cost reduction on a product or process is recognized with an award presented by the President at a year-end cost reduction meeting. Employees are also eligible for two different corporate awards. CLARCOR Citation and Senior Fellow Awards recognize employees for special individual achievement and significant long-term contributions to the company. Winners of these awards receive a plaque, sculpture and shares of company stock presented by the CLARCOR CEO. The presentation is made at annual all-employee meetings amongst peers and corporate officers.

5.2 Describe how the organization’s education and training address key organization plans and needs, including building knowledge and capabilities, and contributing to improved employee performance and development.

Baldwin Filters recognizes that a well-trained workforce is vital to the continued success of the company. Accordingly, many processes have been established to hire, retain and enhance capable employees.

Position Descriptions outline necessary educational background requirements for each job in the company. Adherence to these requirements assures that individuals placed in a job have the necessary formal training and skills to perform the job. Education requirements may range from a minimum of a high school degree to an advanced degree in a specific discipline such as Engineering. Beyond the formal educational requirements, specialized training needs for each job such as computer application programs or internal operating procedures such as quality system requirements are also identified in the company’s Position Descriptions. All employees receive necessary initial orientations and on-the-job training when they begin a new job. Production employees receive safety training and are paired with a trainer to help them learn their new jobs. Training is supplemented with extensive review of written process instructions and procedures, which detail how to perform key jobs within the plant. Supervisors certify that all required training for their subordinates has been completed before employees are allowed to work alone. When process instructions and procedures are changed, the training system ensures that affected employees are retrained to keep their knowledge up-to-date. New supervisors and office personnel go through a specific training program tailored to the individual and the position. This training is conducted jointly by Human Resources and local management. Training needs, which may be required to maintain or enhance an employee’s capabilities, are identified during annual performance appraisals with each employee’s supervisor.

Baldwin Filters offers several programs to improve the training and education of its workforce. A Career Planning Program is available to all employees. Tuition reimbursement (80% of tuition fees and books) is available for all work-related continuing education, including courses for employees seeking college degrees.
while they are employed. Employees who belong to professional organizations attend meetings and seminars offered by these groups at the company’s expense. Employees are invited to attend Baldwin and CLARCOR Universities, which are programs conducted to develop employees and improve their knowledge of the organization and improve personal performance. Managers and employees with management potential participate in 360-degree feedback reviews to help them develop important skills and behaviors. Continuing training and education of Baldwin Filters employees extends throughout the organization to all employees. Countless employees are involved on a daily basis in some type of training activity, in 1999 for example, the President and his staff attended a special CLARCOR University designed for top management.

Training and personnel development are also accomplished through cross training. In manufacturing, employees rotate through various jobs within departments each working day to increase skill levels and provide other valuable department gains. Supervisory and office personnel are regularly selected to fill new positions or vacancies outside of their previous work experiences. Employees are also being cross-trained amongst CLARCOR companies, currently several Baldwin employees are carrying out assignments at other sister companies. Cross training provides the company with an employee base versed in many areas of the operation and business world, and also provides employees an opportunity for diversity in their experience and helps them select and target career directions.

5.3 **Describe how the organization maintains a work environment and work climate that supports the well-being, satisfaction, and motivation of employees.**

Baldwin Filters considers a safe and healthful work environment to be a key component of efforts supporting the well being of its employees. Human Resources directs the safety efforts of the company. Resources include a safety coordinator, management safety team and plant safety committees, an on-site occupational health nurse, and a wellness task force and employee wellness committee. The company also utilizes outside consultants and experts to supplement its safety and wellness activities.

Safety, health and ergonomic improvements are continuous activities at Baldwin Filters. The company promotes employee and management involvement in workplace safety through regular meetings of management safety teams, company safety committees, and investigation of workplace accidents and injuries. Ergonomic improvements are a regular component of annual capital expenditures, and are incorporated into all new equipment and machinery. Employee suggestions and coordination between management, safety personnel and engineers form the core of ergonomic improvement activities. Injury prevention activities are outlined in the company’s written injury prevention program.
Baldwin Filters’ approach to work and job design focuses on achieving high levels of productivity while meeting the needs of its employees. Employees working in manufacturing are cross-trained and rotate through multiple workstations. This provides managers with the flexibility to adjust production schedules as necessary while also protecting the well being of production employees. Continuous improvements in the work environment come from actively soliciting suggestions from employees. Suggestion boxes are available for employees to submit improvement ideas. In 1999 a formal employee involvement program known as Top Three Things was initiated to provide employees an additional avenue for providing ideas and suggestions. Top Three Things methodology is applicable and available to every department in the company. Safety, quality and productivity improvement ideas are the basis for Top Three Things projects. The company periodically conducts comprehensive internal employee surveys to determine the level of employee satisfaction with their jobs and the company. The latest survey conducted in January of this year is presently being analyzed in order that action plans can be formulated and implemented. The company president regularly schedules lunches with employees having service anniversaries to visit about the company’s performance and activities, answer questions, and obtain direct input. Similarly, many department supervisors regularly have similar lunches with employees to discuss local department issues.

Employee wellness is an important objective at Baldwin Filters. Many programs, activities and policies contribute towards efforts to improve employee wellness.

Wellness Program: The company is pursuing the Well Workplace Gold award presented by the Wellness Council of America for fiscal year 2000. During the year employees are offered free health screenings and a variety of other wellness activities focused on exercise, health education, and nutrition.

Employee Assistance Program (EAP): An EAP is available to employees and their immediate family members. This program offers personal counseling dealing with difficulties in personal relationships, substance abuse, mental health, and financial problems.

Company activities: The company plans and provides a variety of activities for employees at all locations each year including an annual family picnic, holiday dinners, and company golf, basketball, and racquetball leagues. Events are held at little or no cost to employees and their family members.
6.0 Process Management

6.1 Describe how new, modified, and/or customized products and services are introduced and how key production/delivery processes are designed. Describe how production/delivery processes are designed, implemented, and improved.

New products for the Baldwin/Hastings aftermarket brands are introduced through the New Product Request process conducted by Product Management. NPR's originate from market research information for new equipment or may be based on “lost sales” information collected by the catalog department. In the private label business area, new products are the result of specific requests from customers, for example, a request for a new oil filter from Detroit Diesel. The Engineering Request process is the method used to initiate this type of product development. The processes used by Marketing and Sales to initiate product developments are documented in the ISO/QS quality system.

Engineering design and development (both product and process) are accomplished using the APQP process (Advanced Product Quality Planning) and documented new product/process design procedures. Design objectives and goals are established based on direct customer specifications (for OEM products) or internally generated specifications (for Baldwin and Hastings brands). Development occurs in a project management setting with timeline milestones, decision points and development activity needs outlined. Project review meetings allow non-team members to be apprised of the development status. Product development would include design, prototyping, build and test, and validation activities before production begins. Once production begins, verification occurs as the final step in the project. Throughout the various stages of APQP, quality planning and associated process control tools are developed for all of the stages of development and production. APQP methodology is applied to major new projects or changes to a degree commensurate with the magnitude of the project. As appropriate for the individual project, APQP includes several team members including internal functions such as Sales, Manufacturing, Engineering, Purchasing and Quality Assurance. Manufacturing and Quality Assurance functions at remote locations are included in APQP projects for products that will be produced at their site. In instances where appropriate, suppliers and/or customers may also be included on the APQP team.

New production processes are also introduced using APQP methods. A team led by a Manufacturing Engineer establishes the requirements and goals of the project and outline the development plan much the same as a product development. Equipment is required to demonstrate a level of statistical capability before it is accepted for production. Machine introduction activities also include training and familiarization by personnel who will be operating the equipment including maintenance personnel. Preventive maintenance schedules would be another output of the development process for new equipment.
Production processes are designed to operate at high levels of safety, quality, and productivity. Measurements from these processes form the basis for improvement projects to increase their level of performance. Improvement activities occur as a result of Top Three Things teams or corrective actions via Problem Elimination Plans (PEP’s) issued by Quality Assurance as a part of the ISO/QS corrective action system.

6.2 Describe how the organization’s key support processes are designed, managed, and improved and how they link the environment, health and safety system with day-to-day operations.

The key support processes for Baldwin manufacturing include:
· Sales and Marketing - to determine customer needs through direct customer contact or available industry information.
· Purchasing - to obtain necessary quantities of raw materials and component parts.
· Engineering - to produce product and process designs.
· MIS - to provide systems that provide information necessary to manage company operations.
· Quality Assurance - to establish quality systems and methods that assure customer requirements are met.
· Human Resources – to manage the procurement and development of the workforce necessary to perform jobs.

Support processes are designed to meet the needs of external and internal customers using the requirements these customers establish. External customer needs are determined by Sales and Marketing. External customers would include first line customers such as distributors and also end-user customers who ultimately use the product. External customers may also include field sales personnel who are geographically separated from the main facility. Internal customer needs are determined by department managers through working with various other internal departments. For example, in 1999 an internal customer satisfaction measurement process was initiated to determine the satisfaction of internal customers of key support departments such as Purchasing, Maintenance, MIS and Engineering. This process coupled with traditional practices provides department managers with clear indications of their customer’s requirements as well as their performance in these areas.

Support processes provide necessary resources to establish any environmental, health or safety requirements in day-to-day operations. Human Resources has responsibility for employee safety and wellness and the Environmental Engineer has responsibility for environmental compliance and protection.

6.3 Describe how the organization’s supplier and partnering processes, relationships, and performance are managed and improved.
Supplier partnering is accomplished through the use of an approved supplier program and supplier development activity managed by Purchasing. Purchasing is responsible for the selection of suppliers that can be approved based on established approval guidelines. If a supplier does not meet the guidelines outlined in Purchasing procedures, they will not become a supplier to Baldwin Filters. Once approved and supplying material, a supplier’s performance is measured against established quality and delivery goals. Failure to meet stated goals will result in discontinuing the supply relationship. Performance is measured and reported to suppliers on a monthly basis with input coming from each manufacturing facility using the supplier’s material(s). Through the use of performance information reported to the supplier on a monthly basis, jointly determined improvement projects can be initiated to improve the supplier’s performance. Baldwin Filters is committed to working with suppliers who have a developed and functioning quality system. In this regard, a Quality Engineer is available to work with suppliers to help them with the system development they require to reach a system that is capable of achieving ISO 9000 or QS9000 certification, should they desire. Suppliers are also included in development activities and planning for new products and processes where their involvement is deemed to be valuable to the advanced product quality planning (APQP) process and development effort.

6.4 Describe how your organization systematically links environmental, health and safety requirements and improvement goals to specific production processes.

Requirements for environmental, health and safety aspects of each production process are outlined in Process Instructions. The Instructions contain all necessary information that any employee working with the process needs to operate the process in a safe manner. Process Instructions are in place before any new process is put into use and are updated as process changes are made. All Process Instructions are approved for their content before issuance, approval is a joint effort between the production supervisor, quality assurance and the safety administrator.

Improvement initiatives for production processes may arise from employee suggestions coming from Top Three Things within a work area or may arise from a corrective action plan resulting from an accident or incident.
7.0 Quality Results

7.1 Summarize the organization’s customer satisfaction and dissatisfaction results.

The formal means of determining customer satisfaction (dissatisfaction) has been through the use of surveys conducted at various times with the last completed survey in 1997; these results will be used in the following information. Surveys conducted prior to 1997 did not ask the same questions in the same manner and are not comparable with 1997 survey results. Also in 1997, an initial survey was conducted of the Hastings customer base for use in direct comparison with Baldwin customer results. Another survey was begun in mid-1999 and results are not yet finalized for comparison purposes. In addition to these surveys, Baldwin also participated in an industry-wide survey conducted by the Filter Manufacturers Council. The purpose of this survey was to benchmark internal results against results for the industry as a whole. Survey results for the key business factors presented in the Company Overview are included in the following sections where available.

Three areas of overall satisfaction have been evaluated. First, what is the customer’s overall level of satisfaction with the company. Second, what is the level of satisfaction with the company compared to other filter suppliers the distributor might represent. And finally, what is the overall satisfaction of the company as compared to other parts suppliers the customer might represent. The majority of Baldwin or Hastings customers do not sell only filters, typically they would also represent other parts manufacturers, for example batteries, shock absorbers, etc, they might also represent other filter brands such as Fram. For Baldwin to be successful, these distributors must believe that they have greater opportunities in the filter business, specifically Baldwin or Hastings, than they do with other parts or filter brands. If they believe Baldwin or Hastings presents greater sales and profit opportunities for their business, they will devote more effort to pursue this result. The survey results for these three metrics are presented in Figure 7.1.1.

In these measures, Baldwin scored consistently higher than Hastings and the industry as a whole. The Hastings results were not surprising as this company had much room for improvement when it was acquired by Baldwin in late 1995. In comparison to the result from the FMC survey which resulted in an 82% overall satisfaction rating for the industry as a whole, Baldwin and Hastings both scored higher.
In the area of product line coverage, again both Baldwin and Hastings scored very well and beyond the industry as a whole. See Figure 7.1.2 and 7.1.3. The FMC survey did not differentiate between heavy duty and automotive products but only looked at product line coverage as an aggregate; the FMC survey result was 75%. Again, survey results in this category were not surprising as Baldwin has historically serviced the heavy-duty market and hence been light on automotive coverage, and Hastings the opposite.

Product quality has a slightly different meaning to every customer. For some, it is a visual measurement of the product characteristics when it comes out of the box. For some, it is a comparison of how one product performs against another. For some, it may not extend beyond “does it fit”. Baldwin’s intent as outlined in our Mission Statement and Quality Policy is to meet all of these definitions. Without question, the product must fit in the intended application; beyond this, some customers demand evidence to show the product will outperform the competition which is typically the OEM product; and finally, the product must also offer some additional evidence of greater value in function and features. Our survey was therefore designed to measure all of these as well as offer definitions of “product quality” that a customer may have. The FMC survey combined all of these definitions into one category called product quality. Results are presented in Figure 7.1.4. While Baldwin again outscored Hastings and the industry as a whole, it was interesting and reassuring to see that Hastings was equal to the industry as a whole as this was the perception that we held when the Hastings acquisition was being evaluated.

Product must be available on distributor’s shelves for sales to occur. A filter is not a product that a buyer will wait for a distributor to order for delivery in a couple of days. For the distributor this means orders from the factory must also arrive as ordered. Order fill rate is a critical factor in this industry. Figure 7.1.5
outlines these customer satisfaction results for Baldwin, Hastings and the industry as a whole.

Service quality at Baldwin is measured from three primary service providers: customer service (including field sales personnel), catalog, and service engineering. These three groups represent the majority of direct customer contact the company provides to customers. Service quality results are presented in Figure 7.1.6. The FMC survey also evaluated customer service but not in all cases can there be direct comparisons due to the structure of various companies and the ways in which various services are provided, see Figure 7.1.7. However, one can still formulate generalized comparisons regarding service performance between Baldwin and the industry as a whole using this information.

A final key business factor included in surveys that is important in this industry is time-to-market for new products. Each year, many new pieces of equipment, engines and vehicles are introduced into the marketplace. Aftermarket manufacturers can only capture sales on these new applications if a product is available from a distributor when the first replacement filter is needed. Baldwin’s historic strategy has centered around the belief that the more products and component parts we manufacture, the quicker we can put new products into the marketplace without being slowed down by external supplier constraints. While we do add new products each year in the hundreds, this remains a constant need in the business. A need that is almost impossible to fully meet. Survey results reflect that our customers feel we need to get better, however by comparison with the industry as a whole, we are better than the competition. See Figure 7.1.8.
7.2 **Summarize the organization's key financial and marketplace performance results.**

As described in 4.1, Baldwin uses three (3) primary indicators of financial performance; gross revenue, operating profit and CLARCOR Value Added (CVA). Figure 7.2.1 demonstrates the continuing positive growth of gross revenues since the company was founded in 1953. Over the last three year period, gross revenue has increased an average of 6.3% and is expected to exceed this rate in 2000.

Operating profit is the key performance measure in the profit sharing program. Since its’ inception, operating profit has exceeded established goals and resulted in 6% payouts to participants. Figure 7.2.2 shows the steady increase in operating profit over the last several years. Not only has gross operating profit increased, operating profit percentage has also increased in a very competitive industry, Figure 7.2.3.

CVA measures both profit performance and asset management and is widely recognized by the financial community as a gauge of financial performance (EVA). Increasing CVA is accomplished through the generation of additional profit dollars without using additional capital or resources beyond the cost of the capital employed. CVA targets are included in the incentive compensation of all senior
managers and directors. Figure 7.2.4 demonstrates the CVA performance since this measure was instituted in 1996.

Figure 7.2.4

CLARCOR Value Added

Baldwin has made tremendous gains in market performance during the last several year period. Market share information generated by industry groups show market share in the primary area, North America, has nearly doubled and has maintained a very positive upward trend since 1990, Figure 7.2.5. While Baldwin operates in several market segments, in the most important segment, Class 6, 7, & 8 On Highway, market share has been increased to the point where our share is second only to a competitor who enjoys first fit business at one of the major engine manufacturers because this competitor is owned by the engine company, Figure 7.2.6. Similarly, brand preference also indicates the growing awareness of the Baldwin brand amongst heavy-duty customers, Figure 7.2.7.

Figure 7.2.5
North American Market Share

Figure 7.2.6
Class 6, 7, 8 Market Share

Figure 7.2.7
Brand Preference
7.3 **Summarize the organization’s human resource results, including employee well-being, satisfaction, development and work system and indicators of employee well-being and satisfaction.**

Baldwin Filters believes that satisfied employees are essential to continued successful growth and development of the organization. The company responds to employee input through a variety of channels to make improvements in its’ workplaces, such as the employee satisfaction survey recently completed in January 2000. When results of the survey are available in March, formal action plans will be outlined and implemented to address concerns raised by employees. In the interim, the following information is provided to demonstrate evidence of employee well-being and satisfaction.

Employee seniority is a key indicator of overall employee satisfaction. A large number of current employees have chosen to remain with the company for many years. Over 80% of the company’s senior management team have been with the company for at least 8 years, and Bill McKenzie, President of Baldwin Filters, has been with the company for over 40 years. 40% of all employees have at least 10 years seniority with the company, and 60% have been employed for at least five years.

Employee turnover is another key indicator of employee satisfaction. The company’s turnover rate over the past five years has declined from 16.3% in 1995 to 13.1% in 1999. When considering only terminations related to absenteeism or job dissatisfaction, those numbers become 8% in 1995, declining to 6.3% in 1999. These figures suggest a correlation exists between reduction in employee turnover and continuing enhancements to the company’s benefits and compensation packages, and other employee development programs.

Other key results include active participation in programs offered by Baldwin Filters, including tuition reimbursement, career planning, and personal wellness initiatives. Over 90 employees have participated in the tuition reimbursement program over the past 3 years, including several that have successfully completed college degrees. During the same interval, over 50 employees participated in career planning activities offered through the Human Resources department, and over 100 employees were involved in one or more personal wellness activities during 1999.

The company has continued a strong tradition of hiring and promoting from within. Over 70% of all positions are filled from the ranks of existing employees. Recent examples include internal promotions of two engineering department managers, the Vice President of Manufacturing Operations, and new production supervisors in Kearney, Gothenburg and Yankton facilities.
7.4 Summarize the results of the organization’s supplier and partner performance.

In 1990 Baldwin first began working with suppliers to develop quality management practices and quality systems. Baldwin conducted system assessment surveys and worked with key suppliers to help them develop their systems. When ISO 9000 became more visible, Baldwin began encouraging suppliers to adopt the requirements of the standard and pursue conformance and possibly 3rd party registration. In 1997, Baldwin further strengthened the message to suppliers by recommending that they begin adopting the system requirements outlined by QS9000. Beginning in 1997, identified key suppliers were required to meet minimum quality system requirements using ISO 9000 as a base and also incorporating several QS9000 elements. Suppliers have listened to the message and a great number have pursued these quality system goals. Presently, 66% of our material purchases ($) are being made from suppliers registered to either ISO 9000 or QS9000. 81% of Tier 1 suppliers are currently registered with the remainder having plans to seek registration or Baldwin assessment. Purchasing requirements for new suppliers include a requirement that the supplier’s quality system must be registered to a recognized standard such as ISO/QS or pass a Baldwin audit using these standards as the measuring stick.

Supplier relationships are intended to be long term. Of 26 Tier 1 suppliers, 62% have been a supplier to Baldwin for 5 years or longer. The supplier of the primary functional component of our products, the filtration media, has been a supplier to Baldwin for 20+ years. They currently represent approximately 90% of our media purchases. They were the first Baldwin supplier to achieve QS9000 registration although in 1990 when we first assessed their quality system we found little. At that time, they enjoyed approximately 50% of our purchases.

7.5 Summarize key organization operational performance results that significantly contribute to key organization goals – customer satisfaction, operational effectiveness, and financial/marketplace performance.

In the Overview, we outlined the key business factors that drive increased performance for the company. Correspondingly, these are the areas that demand outstanding, continued results for the success of the company in the future.

· Broad range of products for many applications – see 3.2 for more details. Figure 7.5.1 outlines the ongoing, continuous growth of the Baldwin product line.
Product quality, performance and warranty coverage – product quality is best measured ultimately by the end user. To this regard, we measure product warranty in two different manners. First we measure total dollars spent for warranty, Figure 7.5.2. This measurement provides a gross comparison of current performance relative to past performance but does not factor in volume of product produced. The second measurement does factor in production volumes by measuring on a parts-per-million format the proportion of products that cause functional problems for our customers. Additionally, we share the results of this measurement with the Filter Manufacturers Council who prepares benchmark comparisons with approximately 8 filter manufacturers participating in this program. Figure 7.5.3 shows the warranty claim results in comparison to the FMC industry average and best-in-class performance. During several periods, Baldwin has been best in class and has always performed significantly better than industry average.

Customer service – in addition to the customer service quality measurements that are made during customer satisfaction surveys (7.1), there are many other examples of customer service improvement that occur on a daily basis. For our distributor customers to be successful, it is very important that we keep the cost of our products down and in line with competitors. To achieve this goal, we operate a very proactive cost reduction program for products and processes. The Vice President of Engineering coordinates cost reduction efforts throughout the organization that are monitored and reported on a monthly basis. This program has been very successful since its inception in 1992 with an average yearly cost reduction of approximately $3.5 million.
Customer service improvement also results from getting products to market sooner. In 1996 we determined that a major bottleneck in the new product introduction cycle was the processing of approval paperwork for engineering documents. At that time a search was undertaken to find a system that could fill our needs and result in cycle time reductions. After visiting large customers and other manufacturers such as Deere, we instituted a software package (Matrix) that provided the results we desired. Figure 7.5.4 shows the dramatic cycle time reduction that have been obtained for the various types of engineering releases and changes that are processed. The end result for our customers is products get to market quicker than ever before, a result they asked for.

In 1999 we completed construction of a new multimillion dollar distribution center to improve shipping performance. While it is too early to quantify the benefits of this expenditure, a simple tour through the facility will highlight the state-of-the-art system we have put into place and the multitude of benefits it will offer as it becomes fully functional.

- **Delivery performance (product availability)** – product must be available to ship to the customers when they want it. Product availability is more than just shipping; it is a matter of inventory control, production scheduling, material availability, manufacturing efficiency, sales forecasting and human resources all coming together in a coordinated effort. This is a difficult challenge in light of factors such as high sales growth, new market segments with ever increasing demands and low unemployment levels to name a few obstacles. In spite of these challenges we have continued to meet customers demands at a high level of performance, Figure 7.5.5.

One of the key contributors to this success has been ongoing commitments to manufacturing efficiency improvements as measured with plant productivity. The following charts show productivity results at all three manufacturing facilities, Figures 7.5.6, 7.5.7, 7.5.8.
Vertical integration and internal capabilities – we consider ourselves to be our best supplier in terms of quality, availability and service. To make this a reality, Baldwin has long practiced vertical integration in our activities and processes. From design of the product, to manufacture of tooling, to manufacture of component parts, we do as much as possible and generally much more than any of our competitors. This can only be accomplished through commitment of financial resources for people and equipment. For example, Figure 7.5.9 demonstrates the commitment that has been made in Engineering resources in the 1990’s, and also the commitment to degreed engineers for this vital function. Additionally, Figure 7.5.10 shows the large ongoing capital expenditures that have been made for facilities, equipment and tooling. Similar commitments have been made in non-manufacturing areas such as equipping the entire field sales force (both Baldwin & Hastings) with laptop computers, upgrade in personnel skills and training in all areas, numerous computer technology introductions and upgrades throughout the company.
Technology (ability to innovate and offer product choices) - In addition to the large number of new products introduced through the efforts of Engineering, the technological level of Baldwin products has also increased. Aftermarket manufacturers such as Baldwin are typically known as “me too” or “copycat” producers. By virtue of our engineering abilities, Baldwin has actively introduced new and unique designs recognized by the US Patent Office, Figure 7.5.11. We have also received several industry awards for new product innovations. In manufacturing, much of the equipment is designed by Baldwin Tool Designers and offers manufacturing advantages not shared throughout the industry. In Marketing, the Baldwin catalog is recognized within the industry as the best and has been made available in an electronic form since the early 1990’s and was enhanced in 1999 with a version on CD’s that offers more information than was previously available. In Sales, we have the ability to work with customers who desire to conduct electronic commerce via methods such as EDI and will be further advancing abilities in 2000 with the introduction of a new e-commerce system.

7.6 Summarize the organization’s environmental, health & safety results, including compliance, regulatory requirements, worker health & safety and organization’s financial/marketplace performance.

Maintaining a work-related injury and illness rate below the national average for our industry is the stated goal of Baldwin Filters’ Injury Prevention Program. The company measures success in meeting this goal each year through comparisons of current injury rates with the latest government statistics. Baldwin Filters has achieved this goal in each of the past four years for total injuries and lost workday cases by employees, Figures 7.6.1 and 7.6.2.
OSHA has not inspected any of the company’s manufacturing facilities in the past five years. During previous inspections in the early 1990’s, relatively few citations were issued and each issue was quickly abated. During the past decade, the company voluntarily requested inspections from both the NE Department of Labor and representatives of the National Safety Council. Identified problem areas were addressed after each inspection. Examples include improving the guarding of an abrasive wheel grinder, installing an additional eyewash station, and adjusting the angle for the cutting head of a radial saw at the request of outside auditors. Baldwin Filters continues to regularly conduct self-inspections to identify and resolve safety and compliance issues before they create problems for its workforce.

Each manufacturing location maintains a management safety team, along with an employee safety committee. Recent safety improvements resulting from the work of these groups include: treating the floor in several areas made slippery by coolant with abrasives to reduce exposure to slips and falls, installing a trash compactor to reduce trash storage in a crowded, busy intersection within a plant, and installing automated parts-loading to reduce employee handling of sharp steel blanks. The safety teams assist in investigating accidents and monitoring work areas to identify issues requiring attention.

The company has also made numerous ergonomic improvements in recent years. Key projects included installing automatic case packers and palletizing on two final assembly lines, adding automatic parts dumpers to eliminate manual loading of bins with steel components, and putting in rotating air lifts, which allow employees to unload components at each assembly line at ergonomically correct heights.
8.0 Sharing of Information

8.1 If the applicant wins the award, how does it plan to share information with other Nebraska firms?

Baldwin Filters would share our quality management methods to the fullest extent should we be chosen as an Edgerton Award recipient. We will publicize the award in the local media and also to our worldwide customer base. We will also continue to encourage our suppliers, particularly those located in Nebraska, to implement quality management activities outlined in the Edgerton criteria. Baldwin employees involved with various professional organizations will also have opportunity to share strategies with their counterparts in these organizations.