APPENDIX - A

SURVEY FINDINGS
ISO 9000 SURVEY FINDINGS

A survey of ISO certified Indian companies was carried out. The name of the companies are given below. The highlights of the findings are as follows:

FINDINGS OF THE SURVEY

Satisfaction level with auditing agencies

Over 95% of the companies reported that they are satisfied with the auditing agencies style and methods of auditing. Only 2% said that they are not very happy while 3% commented they are not at all happy with the conduct and reporting method of auditing.

Reason for selecting a Auditing Agency:

A. Most sought after .................................. 40%
B. In the Group others had it from them ...... 30%
C. Audit for improvement .......................... 28%
D. Cost was competitive .............................. 19%
E. Preferred by the consultant ...................... 15%

Reason for ISO Certification:

When the Top Management were asked as to why they sought ISO 9000 certification, The reasons sited are:

- Customer demanded 68%
- Prevent Non-conformance 54%
- Competitive edge 44%
• Focusing Quality 24%
• Install a formal system 22%
• Global deployment 18%
• Continuous Improvement 12%

Implementation Process of the ISO 9000 system- experiences:

Time taken for certification:

Total time taken for implementation and certification varied from as low as 4 months to as high as 3 years. The frequency distribution of the time taken for certification is given below:

- < 1 Year .............. 28%
- 1 - 1.5 Year.......... 39%
- 1.5 - 2 Year .......... 24%
- 2.2 - 5 Year ........... 6%
- 2.5 - 3 Year ........... 3%

Documentation:

Size of documentation was generally bulky

<table>
<thead>
<tr>
<th>Index</th>
<th>Procedure</th>
<th>Work Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>59</td>
<td>216</td>
</tr>
<tr>
<td>Minimum</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Max.</td>
<td>465</td>
<td>1500</td>
</tr>
</tbody>
</table>

Clauses difficult to implement:

Of the twenty clauses of ISO 9000 series, 4.5, 4.11 and 4.20 have been reported as most difficult to understand and implement.
Internal Quality Audit:

Generally good number of internal quality auditors are available. In 2 number of cases, no internal auditors were available:

<table>
<thead>
<tr>
<th>Auditors</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>37</td>
</tr>
<tr>
<td>10-20</td>
<td>34</td>
</tr>
<tr>
<td>20-30</td>
<td>10</td>
</tr>
<tr>
<td>30-40</td>
<td>12</td>
</tr>
<tr>
<td>40 &amp; above</td>
<td>7</td>
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</tbody>
</table>

In 62% of the cases, certification was preceded by 5 or more internal quality audits but in 8% of the cases, with just 1 or 2 internal quality audits, certification was granted.

Statistical Techniques:

More than 60% of the companies reported found or no awareness of SPC/SQC concepts.

<table>
<thead>
<tr>
<th>Awareness Level</th>
<th>%Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>38</td>
</tr>
<tr>
<td>Somewhat</td>
<td>33</td>
</tr>
<tr>
<td>Low</td>
<td>17</td>
</tr>
<tr>
<td>Non existent</td>
<td>12</td>
</tr>
</tbody>
</table>
Most frequently used statistical techniques included, QC tools, SPC charting and sampling inspection. In 70% of companies, resources in terms of number of persons trained in SQC was less than 10. In quite a few companies there were none.

**Benefits of ISO 9000 Certification:**

- Better understanding of process and responsibilities (66%)
- Improvement of communication leading to better management control (45%)
- Better linkage to other functions (40%)

**General Findings:**

After the certification, the focus is now on:

<table>
<thead>
<tr>
<th>Theme</th>
<th>% of Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Improvement</td>
<td>95</td>
</tr>
<tr>
<td>Delivery Performance</td>
<td>29</td>
</tr>
<tr>
<td>Retaining the certificate</td>
<td>10</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
</tr>
</tbody>
</table>

**Three most important lessons learnt in the process are:**

- Team work is essential (75%)
- People make the system work (53%)
- Cooperation and information sharing is needed (43%)
If any organization has to go for certification, it has to do the following things differently:

- More emphasis on training 47%
- Better process management 41%
- Top down commitment 26%
- Proper documentation of procedures 24%

Recommendations:

Based on the survey findings, the following recommendations have been made:

- Benchmark the auditing methodology and standardize the frame for audit, possibly industry based. This is to facilitate uniformity in audit style.
- Educate and enlighten the lead auditors/auditors on the importance of unified approach on audit style and auditing technique, so that auditor orientation each time and every time is minimised.
- Companies should adopt KISS (Keep it Simple & Short) principle as regards volume of documentation. Too many or unconnected Procedures/Work instructions are prepared and as a result document control has become a nightmare in most cases.
- ISO should encompasses all operations of an industry so that everyone is apart of it. As of today some function/departments do not come under ISO scheme.

- Quality Policy deployment through “SMART” objectives/goals should be encouraged. Audit should be extended to this activity as well.

- Awareness on statistical techniques is generally poor. In most cases, data representation tools viz. Graphical techniques only are made use of. For continuous improvement, use of advanced techniques becomes essential. There is an urgent need to educate both the top management and auditors on the utility of statistical methods in quality improvement. Lack of such knowledge forces management to practice find and fix approach as regards corrective actions and preventive actions on non-conformance, arising in the system.
LIST OF THE COMPANIES

1. HMT Ltd., CNC, Bangalore-13
2. Indian Aluminium Company Ltd. Nanjangud, Karnataka
3. Stumpp, Schuele & Somappa Ltd., Bangalore
4. Electronics Research Laboratory Ltd., Bagalore
5. HMT Ltd., Machine Tools, Bangalore
6. HMT Ltd., Watch Factory, Bangalore
7. HMT Ltd., Machine Tools, Kalamassery
8. HMT Ltd., Machine Tools, Hyderabad
9. HMT Ltd., Press Division, Hyderabad
10. HMT Ltd., Printing Division, Kalamassery
11. HMT Ltd., Machine Tools, Pinjore
12. HMT Ltd., Precision Machinery Division, Bangalore
13. HMT Ltd., Machine Tools, Ajmer
14. HMT Ltd., Watch Factory, Tumkur
15. HMT Ltd., Watch Factory, Ranibagh
16. HMT Bearings Ltd., Hyderabad
17. HMT Ltd., Die Casting Division, Bangalore
18. Kirtoskar Brothers Ltd., Kirloskarwadi
19. Grasim Industries Ltd., Pulp Division, Harinhar
20. Grasim Industries Ltd., Fibre Division, Harihar
21. Glowtronics Ltd., Mysore
22. Auma India Limited, Bangalore
23. Kirloskar Copeland Ltd., Karad
24. Peninsula Polymers (P) Ltd., Trivandrum
25. Balmer Lawrie & Co. Ltd., Arror, Kochi
26. Cuttast Abrasives Tools Ltd., Chennai
27. TANFAC Industries Ltd., Cuddalore
28. Salem Textiles Ltd., Salem
29. Florind Shoes Ltd., Ambur
30. Floram Shoes Ltd., Amur
31. UNISCO Shoes Ltd., Ambur
32. Jayashree Textiles Ltd., Kolkata
33. Exide Industries Ltd., Haldia
34. Birla Cements Ltd., Durgapur
35. ICI Rubber Chemicals (QC Operation) Ltd., Kolkata
36. A Sirkar (Jewellers) Pvt. Ltd., Kolkata
37. ICI-Paints Business, Kolkata
38. Andrew Yule (Togami Unit)
39. Andrew Yule (Brentford Unit)
40. Orissa Cements Ltd.
41. Indian Oil Blending Ltd.
42. Wipro, Consumer Products, Amalner
43. JAIN PLASTICS & Chemicals Division (Papain Product Group) 
   Jalgaon
44. Grasim Industries Ltd., Mavoor
45. Glowtronics Ltd., Mysore
46. Sundaram Fasteners Ltd., Hosur
47. Visalakshi Textiles Ltd., Madurai
48. Hical Magnetics Ltd., Bangalore
49. Rao Insulating Company Ltd., Bangalore
50. Murudeshwar Ceramics Ltd., Hubli
51. Gokak Mills Ltd., Gokak
52. Modi Xerox Ltd., Bangalore
53. Widia (India) Ltd., Bangalore
54. NGEF Ltd., Bangalore
55. Motoroal (India) Ltd., Products Division, Bangalore
56. Hewlett Packard Ltd., Bangalore
57. Wipro Peripherals Ltd., Mysore
58. Larsen & Toubro Ltd., Bangalore
59. TAFE Ltd., Doddaballapur
60. ABB, Corporate Office, Bangalore (Short Projects)
61. Aerospace Division, HAL, Bangalore
62. NVT-QC, Bangalore
63. Stumpp Schuele & Somappa Ltd., Bangalore
64. INDAL, Alumina Plant, Bangalore
65. RHW Autoliv India Ltd., Bangalore
66. Yukogawa Blue Star Ltd., Bangalore (short projects)
67. TITAN Industries, Hosur
68. BEML. KGF (short project)
69. Kinetic Engineering Ltd., Ahmednagar
70. INDAL, DMW Mines, Kolhapur
71. ATIRA, Ahmedabad (short projects)
72. BPL Ltd., Corporate Office, Bangalore (short projects)
73. General Optics Ltd., Pondicherry
74. Rajapalayam Mills, Rajapalayam
75. Sri Lakshmi Saraswathi Textiles, Arni
76. Gnanambika Mills Ltd., Coimbatore
77. Thambi Modern Spinning Mills, Salem
78. Sudarsanam Spinning Mills, Rajapalayam
79. Sri Vishnu Shankar Mills, Rajapalayam
80. Sree Narayana Krishna Spinners Ltd., Udumalpet
81. SLS Textiles, Andhra Pradesh
82. Sambandham Spinning Mills, Salem
83. Sree Akkamamba Textiles Ltd., Tanuku, Andhra Pradesh
84. Kandagiri Spinning Mills Ltd., Salem
85. Palani Andavar Cotton & Synthetic Spinners Ltd., Udumalpet
86. Gujarat Communications & Electronics Ltd., Baroda
87. Patwa Kinariwala Electronics Ltd., Baroda
88. L. K Pace India Private Ltd., Baroda
89. Gujarat State Fertilizer Company Ltd., Baroda
90. United Catalysts (I) Ltd., Baroda
<table>
<thead>
<tr>
<th></th>
<th>Company Name</th>
<th>Location</th>
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<tbody>
<tr>
<td>91</td>
<td>BHEL, Bhopal</td>
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<tr>
<td>92</td>
<td>Kalpataru Power Transmissions Ltd., Gandhinagar</td>
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<td>93</td>
<td>Atlas Myc-Chem Industries</td>
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<td>94</td>
<td>ATE Enterprises Ltd., Ahmedabad</td>
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<td>95</td>
<td>Arvind Mills Ltd., Ahmedabad</td>
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<td>96</td>
<td>DGP Windsor India Ltd., Ahmedabad</td>
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<td>97</td>
<td>Antifriction bearings Corporation Ltd., Bharuch</td>
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<td>98</td>
<td>Gujarat Propack Ltd., Ahmedabad</td>
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<td>99</td>
<td>New Shorrock Mills Ltd., Nadiad</td>
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<td>100</td>
<td>Crompton Greaves Ltd., SPC Division, Nasik</td>
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<td>101</td>
<td>Sudarshan Chemical Industries Ltd., Pune</td>
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<td>102</td>
<td>Fleet guard Filtration Systems (India) Pvt. Ltd., Pune</td>
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<td>103</td>
<td>The Kolhapur Steel Limited, Kolhapur</td>
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<td>104</td>
<td>Precimax Bearings Pvt. Ltd., Kolhapur</td>
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<td>105</td>
<td>Kirloskar Pneumatic Co. Ltd., Pune</td>
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<td>106</td>
<td>Mahindra &amp; Mahindra Ltd., Bombay</td>
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<td>107</td>
<td>KSB Pumps Ltd., Pune</td>
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<td>108</td>
<td>Spentex Industries Ltd., Baramati</td>
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<td>109</td>
<td>Indian Oil Blending Ltd., Bombay</td>
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<td>110</td>
<td>Indian Oil Blending Ltd., Vashi</td>
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<tr>
<td>111</td>
<td>Technova Imaging Systems Ltd., Taloja</td>
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<td>112</td>
<td>Bharat Electronics Ltd., Taloja</td>
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<tr>
<td>113</td>
<td>Standard Batteries Ltd., Mumbay</td>
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</tbody>
</table>
114. Bumper (India) Ltd., Mumbay
115. Gratex Ltd., Mumbay
116. Godrej & Boyce Mfg. Co. Ltd., Typewriter Division, Mumbay
117. Bharat Petroleum Corporation Ltd. Mumbay
118. BHEL, Project Engineering Management, New Delhi
119. Sri Jataraj Cermics & Chemical Industries Ltd., Dalmiapuram
120. T Abdul Wahid & Co. Ambur
121. Antrieb Technik Private Ltd., Chennai
122. Engine Valves Ltd., Chennai
123. Engine Valves Ltd., Hyderabad
124. Whirpool India Ltd., Washing Machine Division, Pondicherry
125. Sundram Fasteners Ltd., Chennai
126. Tractors & Farm Equipments Ltd., Chennai
127. Mathia's Packaging Industries Ltd., Chennai
128. N. F, Private Ltd., Madras
129. Farida Shoes Private Ltd., Chennai
130. Sunil & Co. Chennai
131. Heavy Alloy Penetration Project, Ordance Factory, Tiruchirapalli
132. Gramophone Company of India Ltd., Kolkata
133. Hyderabad Industries Ltd.
134. Hindustan Motors Ltd.
135. ICI (Paints), Rishra
136. DCM ltd., Delhi
137. Ordnance Factory, Dehradoon
138. BHEL, Corporate Quality Assurance, Secunderabad
139. Ferro Allowys Corporation Ltd., Garivedi
140. Nagarjuna Steels Ltd., Patancheru
141. SRMT, Kakinada
142. Bharat Dynamics Ltd., Bhanur
143. Nava Bharat Ferro Alloys Ltd., Hyderabad
144. Dr. Reddy's Laboratories, Hyderabad
145. Nationa Ship Research Development Centre, Vishakapatnam
146. FACOR, Shreerammnagar
147. SCL, Bolarum
148. SAMKRG Pistons Ltd., Hyderabad
149. Naravita Agro Products Ltd. Hyderabad
150. Western India Plywoods Ltd., Kanpur
151. Tata Tea Ltd., Munnar
152. Thruvananthapuram Regional Co.op Milk Producers Union, Trivandrum
153. Peninsula Polymers Ltd., Trivandrum
154. Balmer Lawrie & Co. Ltd. Arror, Kochi
155. United Catalysts (India) Ltd., Ernakulam
156. Whirlpool India Ltd., Faridabad
157. FAL Industries Ltd., Chennai
158. Sundarma Fasterners Ltd., Pondicherry
159. Sundaram Fasteners ltd., Madurai
160. L & T Engineering Project and Equipment group, Kolkata
161. ITC (Triberi Tissue Division), Kolkata
162. Peerless Hospital, Kolkata
163. Rifle Factory, Ishapure
164. Jayashree Textiles Ltd., Kolkata
165. Metflow Industries Ltd., Kolkata
166. Balmer Lawrie & Co. Ltd., (Tea Division)
167. Birla Jute and Industries Ltd., Kolkata
168. Andrew Yule Limited (Togami Unit)
169. ICI-Explosives Division
170. Exide Industries (Haldia Unit)
171. Department of P & T
172. Indian Oil Blending Ltd., Kolkata