

# **APPENDIX 1**

(Company Mission)



LRC Hospital Products Sdn. Bhd.  
(6745-M)

(Batang Kali Office)  
Lot No. B5 & B6,  
Kawasan Perindustrian MIEL,  
Batang Kali Phase II,  
44300 Batang Kali,  
Selangor Darul Ehsan, Malaysia.  
Tel : 603 - 60573778/9  
Fax : 603 - 60574119

# **LRC HP BATANG KALI**

## **MISSION**

"To continually  
improve our  
operational activities  
in manufacturing  
premium quality  
products,  
whilst growing a  
culture of quality  
amongst our  
employees"





## **APPENDIX 2**

**anced Scorecard - Objectives, Measures and Targets)**



**LRC Hospital Products Sdn. Bhd.**  
(166745-M)

(Batang Kali Office)  
Lot No. B5 & B6,  
Kawasan Perindustrian MIEL,  
Batang Kali Phase II,  
44300 Batang Kali,  
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Tel : 603 - 60573778/9  
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We note below the objectives, measures and targets for LRCHP Batang Kali for 2001/02. It is the management's intention to report on a monthly basis our actual achievement against the targets so all employees are able to track our success in achieving our goals.

### BALANCED SCORECARD PROPOSALS

	OBJECTIVES	MEASURES	TARGETS
Financial	<ol style="list-style-type: none"> <li>1. Cost minimization</li> <li>2. Quick recovery of capital invested</li> </ol>	<ul style="list-style-type: none"> <li>• Unit Cost</li> <li>• Return on Capital Employed</li> <li>• Return On Net Assets</li> <li>• Gross Margin</li> </ul>	<ul style="list-style-type: none"> <li>• Regent Sterile &lt; <b>RM1.8/pr</b></li> <li>• Biogel &lt; <b>RM1.22/pr</b></li> <li>• Retained Profit &gt; <b>RM 0.2 million/month</b></li> </ul>
Customer	<ol style="list-style-type: none"> <li>1. Ship on time</li> <li>2. Increase market share for Regent Surgical</li> <li>3. Improve consistency of quality</li> <li>4. Meet end user and regulatory requirements</li> <li>5. Achieve ISO9002 accreditation</li> <li>6. Improve customer relations</li> </ol>	<ul style="list-style-type: none"> <li>• Customer complaints including Kulim</li> <li>• Outgoing quality levels in terms of % holes</li> <li>• % orders delivered on time and in correct mix and quantity</li> </ul>	<ul style="list-style-type: none"> <li>• Customer complaints &lt; <b>2 per million pairs shipped</b></li> <li>• Holes Level at Lot Release &lt; <b>0.2%</b></li> <li>• SKU performance &gt; <b>98%</b></li> </ul>
Human Resource Development	<ol style="list-style-type: none"> <li>1. Ensure employee Motivation</li> <li>2. Enhance Employee Development</li> <li>3. Maintain employee service and benefit requirements</li> <li>4. Improve selection and recruitment process</li> <li>5. Minimize staff shortages</li> </ol>	<ul style="list-style-type: none"> <li>• Average days spent per year on employee training</li> <li>• Number of internal promotions vs. external</li> <li>• Employee turnover</li> <li>• Absenteeism level</li> <li>• Salary comparison within region</li> <li>• Vacancy levels</li> </ul>	<p>Training &gt; <b>1.5 days/employee/year</b> Ratio of internal:external employment &gt; <b>2:1</b> Turnover &lt; <b>3%/month</b> Absenteeism &lt; <b>3.2%/month</b> Operator Salary <b>best in industrial estate</b> Vacancies &lt; <b>0.7% of headcount</b></p>
Manufacturing Processes	<ol style="list-style-type: none"> <li>1. Maintain and improve high quality standard.</li> <li>2. Improve inter-dept. communication</li> <li>3. Cultivate good teamwork</li> <li>4. Increase product range</li> </ol>	<ul style="list-style-type: none"> <li>• Manufacturing overhead costs</li> <li>• Machine downtime</li> <li>• Yields</li> <li>• Rework Costs</li> <li>• Finished goods stocks as % of sales</li> <li>• Holes level ex-AG</li> <li>• Overtime costs</li> </ul>	<p>"Other" overheads &lt; <b>RM 0.8 million/month</b> Downtime &lt; <b>4%</b> Site Yield &gt; <b>90%</b> Rework costs &lt; <b>0.2%</b> Holes Level ex-AG &lt; <b>0.2%</b> Finished stock &lt; <b>20%</b> Overtime &lt; <b>RM75K/month</b></p>

## **APPENDIX 3**

**(Balanced Scorecard - The results)**

See note below our performance for last month, we achieved 9 of our targets, but failed in achieving another 5 targets (highlighted in red). This represents an improvement on last months performance.

## BALANCED SCORECARD

Month:     **MAY 2001**

A	MEASURES	TARGETS	RESULTS
Financial	<ul style="list-style-type: none"> <li>Unit Cost</li> <li>Return on Capital Employed</li> <li>Return On Net Assets</li> <li>Gross Margin</li> </ul>	<ul style="list-style-type: none"> <li>Regent Sterile &lt; <b>RM1.8/pr</b></li> <li>Biogel &lt; <b>RM1.22/pr</b></li> <li>Retained Profit &gt; <b>RM 0.2 million/month</b></li> </ul>	<ul style="list-style-type: none"> <li>Regent Sterile = N/A</li> <li>Biogel = <b>RM1.22/pr</b></li> <li>Retained Profit = <b>RM -0.03 million</b></li> </ul>
Customer	<ul style="list-style-type: none"> <li>Customer complaints including Kulim</li> <li>Outgoing quality levels in terms of % holes</li> <li>% orders delivered on time and in correct mix and quantity</li> </ul>	<ul style="list-style-type: none"> <li>Customer complaints &lt; <b>2 per million pairs shipped</b></li> <li>Holes Level at Lot Release &lt; <b>0.2%</b></li> <li>SKU performance &gt; <b>98%</b></li> </ul>	<ul style="list-style-type: none"> <li>Customer complaints = <b>5 per million pairs shipped</b></li> <li>Holes Level at Lot Release = <b>0.75%</b></li> <li>SKU performance = <b>100%</b></li> </ul>
Human Resources	<ul style="list-style-type: none"> <li>Average days spent per year on employee training</li> <li>Number of internal promotions vs. external</li> <li>Employee turnover</li> <li>Absenteeism level</li> <li>Salary comparison within region</li> <li>Vacancy levels</li> </ul>	<ul style="list-style-type: none"> <li>Training = <b>1hr/ employee</b></li> <li>Ratio of internal:external employment &gt; <b>2:1</b></li> <li>Turnover &lt; <b>3%/month</b></li> <li>Absenteeism &lt; <b>3.2%/month</b></li> <li>Operator Salary <b>best in industrial estate</b></li> <li>Vacancies &lt; <b>0.7% of headcount</b></li> </ul>	<ul style="list-style-type: none"> <li>Training = <b>4.0hrs/ employee</b></li> <li>Ratio of internal:external employment = N/A</li> <li>Turnover = <b>2.0%/month</b></li> <li>Absenteeism = <b>1.6%/month</b></li> <li>Operator Salary <b>No. 1 in industrial estate</b></li> <li>Vacancies = N/A</li> </ul>
Business Processes	<ul style="list-style-type: none"> <li>Manufacturing overhead costs</li> <li>Machine downtime</li> <li>Yields</li> <li>Rework Costs</li> <li>Finished goods stocks as % of sales</li> <li>Holes level ex-AG</li> <li>Overtime costs</li> </ul>	<ul style="list-style-type: none"> <li>"Other" overheads &lt; <b>RM 0.8 million/month</b></li> <li>Downtime &lt; <b>4%</b></li> <li>Site Yield &gt; <b>90%</b></li> <li>Rework costs &lt; <b>0.2%</b></li> <li>Holes Level ex-AG &lt; <b>0.2%</b></li> <li>Finished stock &lt; <b>20%</b></li> <li>Overtime &lt; <b>RM75K/month</b></li> </ul>	<ul style="list-style-type: none"> <li>"Other" overheads = <b>RM 0.358 million</b></li> <li>Downtime = <b>5.5%</b></li> <li>Site Yield = <b>90.7%</b></li> <li>Rework costs = N/A</li> <li>Holes Level ex-AG = <b>0.6%</b></li> <li>Finished stock N/A</li> <li>Overtime = <b>RM52K</b></li> </ul>

N/A means information not available or not applicable for this month

MIKE AINSLIE

Please note below our performance for last month, we achieved 14 of our targets and failed in missing 4 other targets (highlighted in red).

<b>BALANCED SCORECARD</b>		<b>Month: JUNE'2002</b>	
	<b>MEASURES</b>	<b>TARGETS</b>	<b>RESULTS</b>
Financial	<ul style="list-style-type: none"> <li>Unit Cost</li> <li>Return on Capital Employed</li> <li>Return On Net Assets</li> <li>Gross Margin</li> <li>Stock control</li> </ul>	<ul style="list-style-type: none"> <li>Biogel &lt; <b>RM1.38/pr (3 month moving average)</b></li> <li>Movement Variance/Gross MR &lt;30% <b>(2 month average)</b></li> <li>Working Capital &lt; <b>RM1041K</b></li> </ul>	<ul style="list-style-type: none"> <li>Biogel = <b>RM1.80/pr</b></li> <li>Movement variance = <b>1%</b></li> <li>Working Capital = <b>RM697K</b></li> </ul>
Customer	<ul style="list-style-type: none"> <li>Customer complaints including Kulim</li> <li>Outgoing quality levels in terms of % holes</li> <li>% orders delivered on time and in correct mix and quantity</li> <li>Gloves not prone to donning tear issues</li> </ul>	<ul style="list-style-type: none"> <li>Customer complaints &lt; <b>2 per million pairs shipped</b></li> <li>Holes Level at Lot Release &lt; <b>0.2%</b></li> <li>SKU performance &gt;<b>98%</b></li> <li>Aged Tensile Strength individual minimum &gt;<b>25MPa</b></li> </ul>	<ul style="list-style-type: none"> <li>Customer complaints = <b>0 per million pairs shipped</b></li> <li>Holes Level at Lot Release = <b>0.33 %</b></li> <li>SKU performance = <b>100%</b></li> <li>Aged Tensile Strength individual minimum =<b>24.6pa</b></li> </ul>
Human Resources	<ul style="list-style-type: none"> <li>Average days spent per year on employee training</li> <li>Number of internal promotions vs. external</li> <li>Employee turnover</li> <li>Absenteeism level</li> <li>Salary comparison within region</li> <li>Vacancy levels</li> </ul>	<ul style="list-style-type: none"> <li>Training = <b>1hr/ employee</b></li> <li>Turnover &lt; <b>3%/month</b></li> <li>Absenteeism &lt; <b>3.2%/month</b></li> <li>Operator Salary <b>best in industrial estate</b></li> <li>Vacancies &lt; <b>0.7% of headcount</b></li> </ul>	<ul style="list-style-type: none"> <li>Training = <b>1.7hrs/ employee</b></li> <li>Turnover = <b>2.1%</b></li> <li>Absenteeism = <b>0.5%/month</b></li> <li>Operator Salary <b>No. 1 in Batang Kali</b></li> <li>Vacancies = <b>2.1%</b></li> </ul>
Manufacturing Costs	<ul style="list-style-type: none"> <li>Manufacturing overhead costs</li> <li>Machine downtime</li> <li>Yields</li> <li>Rework Costs</li> <li>Finished goods stocks as % of sales</li> <li>Holes level ex-AG</li> <li>Overtime costs</li> </ul>	<ul style="list-style-type: none"> <li>"Other" overheads &lt; <b>RM 411K/month</b></li> <li>Downtime &lt; <b>4%</b></li> <li>Site Yield &gt; <b>91%</b></li> <li>Holes Level ex-AG &lt; <b>0.2%</b></li> <li>Finished stock &lt; <b>20% of total value of stock</b></li> <li>Overtime &lt; <b>RM38K/month</b></li> </ul>	<ul style="list-style-type: none"> <li>"Other" overheads = <b>RM 279K</b></li> <li>Downtime = <b>0.37%</b></li> <li>Site Yield = <b>93.7%</b></li> <li>Holes Level ex-AG = <b>0.13%</b></li> <li>Finished stock = <b>15.4%</b></li> <li>Overtime = <b>RM19K</b></li> </ul>

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use of our performance for last month, we achieved 14 of our targets and failed in achieving 4 other targets (highlighted in red). Key highlight again was achieving the target for minimum tensile strength, however we need to improve the AG holes level this month.

# **BALANCED SCORECARD**

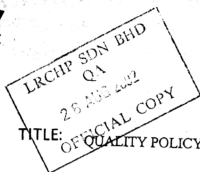
Month: **FEBRUARY**

EA	MEASURES	TARGETS	RESULTS
Financial	<ul style="list-style-type: none"><li>• Unit Cost</li><li>• Return on Capital Employed</li><li>• Return On Net Assets</li><li>• Gross Margin</li><li>• Stock control</li></ul>	<ul style="list-style-type: none"><li>• Biogel &lt; <b>RM1.38/pr</b> (3 month moving average)</li><li>• Movement Variance/Gross MR &lt; <b>30%</b> (2 month average)</li><li>• Working Capital &lt; <b>RM865K</b></li></ul>	<ul style="list-style-type: none"><li>• Biogel = <b>RM0.70/pr</b></li><li>• Movement variance = <b>0%</b></li><li>• Working Capital = <b>RM666K</b></li></ul>
Customer	<ul style="list-style-type: none"><li>• Customer complaints including Kulim</li><li>• Outgoing quality levels in terms of % holes</li><li>• % orders delivered on time and in correct mix and quantity</li><li>• Gloves not prone to donning tear issues</li></ul>	<ul style="list-style-type: none"><li>• Customer complaints &lt; <b>2 per million pairs shipped</b></li><li>• Overall Holes Level at Lot Release &lt; <b>0.2%</b></li><li>• SKU performance &gt; <b>98%</b></li><li>• Aged Tensile Strength individual minimum &gt; <b>25MPa</b></li></ul>	<ul style="list-style-type: none"><li>• Customer complaints = <b>0 per million pairs shipped</b></li><li>• Holes Level at Lot Release = <b>0.17%</b></li><li>• SKU performance = <b>100%</b></li><li>• Aged Tensile Strength individual minimum = <b>25.7pa</b></li></ul>
Human Resource	<ul style="list-style-type: none"><li>• Average days spent per year on employee training</li><li>• Number of internal promotions vs. external</li><li>• Employee turnover</li><li>• Absenteeism level</li><li>• Salary comparison within region</li><li>• Vacancy levels</li></ul>	<ul style="list-style-type: none"><li>Training = <b>1hr/ employee</b></li><li>Turnover &lt; <b>3%/month</b></li><li>Absenteeism &lt; <b>3.2%/month</b></li><li>Operator Salary <b>best in industrial estate</b></li><li>Vacancies &lt; <b>0.7% of headcount</b></li></ul>	<ul style="list-style-type: none"><li>• Training = <b>1.0hrs/ employee</b></li><li>• Turnover = <b>3.2%</b></li><li>• Absenteeism = <b>1.1%/month</b></li><li>• Operator Salary <b>No. 1 in Batang Kali</b></li><li>• Vacancies = <b>1.1%</b></li></ul>
Operational	<ul style="list-style-type: none"><li>• Manufacturing overhead costs</li><li>• Machine downtime</li><li>• Yields</li><li>• Rework Costs</li><li>• Finished goods stocks as % of sales</li><li>• Holes level ex-AG</li><li>• Overtime costs</li></ul>	<ul style="list-style-type: none"><li>"Other" overheads &lt; <b>RM 411K/month</b></li><li>Downtime &lt; <b>4%</b></li><li>Site Yield &gt; <b>91%</b></li><li>Holes Level ex-AG &lt; <b>0.2%</b></li><li>Finished stock &lt; <b>20% of total value of stock</b></li><li>Overtime &lt; <b>RM38K/month</b></li></ul>	<ul style="list-style-type: none"><li>• "Other" overheads = <b>RM 386K</b></li><li>• Downtime = <b>2.4%</b></li><li>• Site Yield = <b>93.4%</b></li><li>• Holes Level ex-AG = <b>0.24%</b></li><li>• Finished stock = <b>3.5%</b></li><li>• Overtime = <b>RM44K</b></li></ul>

MIKE AINSLIE

# **APPENDIX 4**


(Quality Policy)



International is dedicated to producing high quality healthcare and personal protective products in the  
s of condoms, medical gloves, wound care, dressing retention, compression therapy, infection control,  
opaedics, over-the-counter (OTC) products and industrial gloves that fulfil customer needs and  
ectations.

pecifically it is the Company policy:

- to maintain a management system, defined by ISO 9001, and where appropriate ISO 13485, the requirements of the Medicines Act, the Medical Devices Directive 93/42/EEC, the Personal Protective Equipment Directive 89/686/EEC, the Cosmetics Directive 76/768/EEC and the US FDA QSR;
- to ensure that all staff are fully trained, competent and have a thorough understanding of the part they play in producing a quality product. Quality is the responsibility of everyone;
- to provide products that fully meets customer requirements. Failure to satisfy customer needs means loss of business
- to design, develop and acquire products that are effective, safe and reliable. Customer confidence in a product means strong user loyalty;
- to work with suppliers to ensure materials and services used conform to defined requirements and quality levels. Consistency is vital in the materials and services used to manufacture quality products; and
- to maintain high quality standards and set targets to improve performance. The quest for quality is essential to the Company's commitment to excellence

  
Brian Buchan Chief Executive

  
Peter Stephenson Group R&D Director



## **APPENDIX 5**

LRC - Good Manufacturing Practices)

# LRC HOSPITAL PRODUCTS SDN. BHD.

(166745-VI)  
Lot 9, Lorong Perusahaan 4, Kulim Industrial Estate,  
P.O.Box 52, 09000 Kulim, Kedah, Malaysia.  
Tel : 604-4891819 Fax : 604-4891814

# LRC HOSPITAL PRODUCTS SDN. BHD.

(166745-VI)  
Plot 204, Kawasan Perusahaan Kuala Ketil,  
09300 Kuala Ketil, Kedah, Malaysia.  
Tel : 604-4162040 Fax : 604-4161026

# LRC HOSPITAL PRODUCTS SDN. BHD.

(166745-VI)  
Lot B5 & B6, Kawasan Perindustrian MIEL, Batang Kali,  
Phase 2, 44300 Batang Kali, Selangor, Malaysia.  
Tel : 603-60573778 Fax : 603-60574119

LRC Hospital Products Sdn. Bhd.

# GOOD MANUFACTURING PRACTICES

## AMALAN PENGELUARAN YANG BAIK

Name \_\_\_\_\_  
Nama : \_\_\_\_\_  
Emp. No. \_\_\_\_\_  
No. Pekerja : \_\_\_\_\_  
Designation \_\_\_\_\_  
Jawatan : \_\_\_\_\_  
Dept. \_\_\_\_\_  
Jabatan : \_\_\_\_\_

This is your copy of LRC Hospital Products Good Manufacturing Practices handbook.

All information in this handbook reflects the status of all plans and programs as at 12th. JUNE 2002.

Should you require further detailed explanations or have any questions on any of the issues, please contact the Personnel Department (Training & Development Section).

Date of publication : 12th JUNE 2002  
Revision : 01

We, in LRC Hospital Products believe  
GOOD MANUFACTURING PRACTICES is everybody's business

 Giti Compounding Manager	 Abd. Rashid Warehouse Manager
 Norani Planning Manager	 Ng Lai Seng Manufacturing Technical Manager (Batang Kali)
 P. S. Ng M.I.S. Manager	
 Juhari Primary Production Manager	 Jayabalan Secondary Production Manager
 Haslina Production Manager AG 9-14	
 S. H. Tan Plant Engineer	 Ramesh Training & Development Manager
 S. C. Waihy Micro Lab. Manager	
 L. G. See Manufacturing Manager (Kuala Ketil)	 Separan Safety Health & Environment Manager
 S. H. Ching Engineering Manager	
 Shamsu Personnel Manager	 H. S. Lee Finance Manager
 Q. A. Manager	
 Alastair deSilva Manufacturing Manager (Kulim)	 Stuart M. Grieve Manufacturing Director
	 Michael Anislie Factory Manager (Batang Kali)

## 1. OPERATIONAL TRAINING



- 1.1 You will be provided the necessary training in order to perform your assigned responsibilities adequately.
- 1.2 You have to perform your job in accordance to established work procedures.
- 1.3 You will be made aware of errors / rejects which may occur if you deviate from the work procedures.
- 1.4 You are not allowed to take any short cuts or make changes while performing your job. All deviations must be reported to your superior.
- 1.5 All training programmes conducted will be documented and recorded in your personal file.

## 2. PERSONNEL HEALTH & CLEANLINESS



- 2.1 You must be medically fit to perform your job. If you are found through medical examination or supervisory observation to appear to have a condition which could adversely affect the device, you shall be excluded from affected operations until your condition has improved.
- 2.2 Please report to your supervisor if you are having skin lesions on exposed surfaces of your body, or if you suffer from any communicable diseases.  
(Contagious diseases eg. chicken pox)

### 3. CLEANING AND SANITATION



- 3.1 Washing and toilet facilities shall be kept clean and tidy at all times.

- 3.2 Used sanitary packs must be disposed off in the designated disposal bins.



- 3.3 Hands are to be washed with liquid soap, rinsed well and thoroughly dried after using the toilet.

- 3.4 Ensure that sewage, trash, by products, chemical effluents and other refuse are disposed in a timely, safe and sanitary manner.



### 4. PERSONAL PRACTICES

- 4.1 You are not allowed to eat and drink in any area except in the canteen and in the administrative offices.



- 4.2 Drinking from designated water fountains is permitted.



- 4.3 Smoking is only permitted in the canteen (smoker's corner).



- 4.4 Please follow the clothing regulations when you enter the designated manufacturing areas.



- a) Mop Cap (hairnet) has to be worn in all areas of manufacturing. It has to be worn such that all your hair is fully covered. (over ears & side burns).



- b) Face mask has to be worn in the designated areas. Beards & moustaches are to be covered with the face mask.



- c) Smock has to be worn in the designated areas. You are not allowed to take the smock outside the designated area. Sitting on the floor with your smock on are not allowed. Smock has to be sent to the laundry after being used.



- d) Booties (foot cover) are to be used in the designated manufacturing areas.



- e) Company uniforms must be washed internally (laundry) and kept in your locker. You are not allowed to take your uniform home. No jackets or sweaters should be worn over the uniform. Any undergarment worn should not protrude from the plain uniform. White coat must be worn over personal clothing by employees who do not wear company uniform.

- f) All personal belongings are to be kept in the locker. Do not take personal belonging into the manufacturing areas.



- g) You are not allowed to use any kind of cosmetics in all designated manufacturing areas. Cosmetics include nail varnish, false finger nails or eye lashes, eye liner, blusher, lipstick, face powder, "pottu" and others.



- h) Jewelleries except the following must not be worn in the manufacturing area or by personnel in contact with the device.



- Sleeper type ear ring (no stone, no sharp edges)
- Plain wedding ring (no stone, no sharp edges)
- Wrist watch (no stone, no sharp edges)

- i) Any form of copper (jewelleries or accessories) should not be brought into the manufacturing area

- j) You are not allowed to wear shoes of open toes, high heeled or sandals in the manufacturing areas. Only covered shoes are allowed.  
Note : Shoes of open toes, high heeled or sandals are to be changed to flat heeled and covered shoes prior to entering manufacturing areas.



- k) You are not allowed to comb your hair in the manufacturing area. Finger nails are to be kept short and clean.



### 5. ENVIRONMENTAL CONTROL



- 5.1 A safe and comfortable working environment with suitable lighting and ventilation will be provided.

- 5.2 The environment will be monitored on a periodic basis to check for any airborne

## 6. CONTAMINATION CONTROL

- 6.1 Adequate space is designed to prevent mix-ups. Incoming materials, in-process products, finished goods, reprocessed /reworked and quarantined goods are handled in order to prevent mix-ups.
- 6.2 All contaminants, e.g.- pesticides, lubricating oil and by-products should not get mixed up with the products.



- 6.3 Do not drop in-process products and finished products on the floor, if the products are accidentally dropped please inform the supervisor. Dropped products are to be rejected.

## 7. MAINTENANCE & CALIBRATION

- 7.1 All manufacturing and quality assurance equipments shall routinely calibrated according to written procedures.



- 7.2 Do not use the equipment which has exceeded the calibration due dates. Please inform your supervisor immediately.

## 8. DOCUMENTATION

- 8.1 Each operation has to be carried out according to the Standard Operating Procedures.
- 8.2 All written procedures must be followed strictly.
- 8.3 Document your work promptly and accurately.
- 8.4 Signature:
- Sign and date all entries on the date of entry.
  - All signatures must be traceable to the signature identification record maintained by Supervisor / Area manager.
  - Date must be written as Day/Month/Year.  
e.g.: 01/06/97 or 28/10/97.

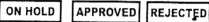


## 8.5 Correction:

- a) Do not use blanco, Tip-ex, liquid paper, do not write-over or erase.
- b) Draw a single line through wrong entry and enter correction in a legible manner.
- c) Sign and date the correction :  
e.g.: 122/97 10/07/97  
Processing Solution No.: +24/97
- d) All documentation must be written using permanent black ink pen.



## 9. LABELING



- 9.1 Only material (raw material or in-process materials) with approval sticker can be used. Materials with Quarantined, On Hold, Rejected, without any identification stickers cannot be used, if found please inform to your supervisor immediately.
- 9.2 Record the lot no. of the material in all the relevant documents as required for traceability.

## 10. SEGREGATION

- 10.1 All materials to be segregated according to it's status.

e.g.: Approved, On Hold, Quarantined, Different Lot Number.



## QUALITY POLICY

SSI International is dedicated to producing high quality healthcare and personal protective products in the areas of condoms, medical gloves, wound care, dressing retention, compression therapy, infection control, orthopaedics, over-the-counter (OTC) products and industrial gloves that fulfil customer needs and expectations.

Specifically it is the company policy

- to maintain a management system, defined by ISO 9001, and where appropriate ISO 13485, the requirements of the Medicines Act, the Medical Devices Directive 93/42/EEC, the Personal Protective Equipment Directive 89/686/EEC, the Cosmetics Directive 76/768/EEC and the USFDA QSR,
- to ensure that all staff are fully trained, competent and have a thorough understanding of the part they play in producing a quality product. Quality is the responsibility of everyone;
- to provide products that fully meets customer requirements. Failure to satisfy customer needs means loss of business
- to design, develop and acquire products that are effective, safe and reliable. Customer confidence in a product means strong user loyalty;
- to work with suppliers to ensure materials and services used conform to defined requirements and quality levels. Consistency is vital in the materials and services used to manufacture quality products; and
- to maintain high quality standards and set targets to improve performance. The quest for quality is essential to the Company's commitment to excellence.

## AMALAN

## PENGELUARAN YANG BAIK

Ini adalah salinan buku panduan and tentang Amalan Pengeluaran Yang Baik d LRC Hospital Products Sdn. Bhd.

Semua maklumat di dalam buku panduan in mencerminkan status perancangan dar program mulai 12hb JUN 2002.

Jika anda perlu penerangan yang lebih lanjut atau ingin mengemukakan soalan tentang apa saja isu yang dipaparkan, sila hubungi Jabatan Personel (Bahagian Latihan & Pembangunan)

## **APPENDIX 6**

(Health and Safety Policy)

**CONTROLLED COPY**

Order: 91PBK DOC. CONTROL  
Design: P. Buchan  
Date: 18/7/02.

REF: SP005  
DATE: Dec 2001  
ISSUE: 15  
PAGE: 9 of 31

**TITLE:****HEALTH AND SAFETY POLICY STATEMENT**

This statement reflects SSL International plc's (SSL) commitment to health, safety and welfare.

SSL recognises that health and safety contributes to good business performance and, will therefore, receive equal priority to that of all other business objectives.

Every employee will be expected to co-operate with the Company to enable it to meet its statutory duties.

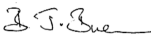
The Company policy to:

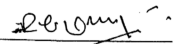
1. Ensure the health, safety and welfare of its employees (and those who may be affected by the activities and operations of SSL) by the systematic identification and assessment of hazards in combination with appropriate risk control.

2. Make all employees aware of their safety responsibilities in order to ensure both their own safety and the safety of others who are affected by their acts or omissions.

3. Provide every employee with the training, instruction, supervision and information necessary to enable safe performance of their tasks.

4. Make arrangements for employees to raise health and safety issues.

  
B. Buchan Chief Executive

  
R.C. Dwyer Group Human Resources Director

Date: October 2001

# **APPENDIX 7**

(Health and Safety Manual)



***Group  
Health and Safety  
Department***

**Health and Safety  
Manual Audit  
Document**



Section	Score	
	Actual	Maximum
Training	520	520
Health and Safety Communication	165	175
Safety Plan	0	350
Legislative Compliance	345	350
Health and Safety Assistance	300	300
Staff Consultation	185	200
Risk assessment	425	550
Emergency Procedures	160	170
Fire Procedures	355	550
Health & Safety Incident Reporting & Investigation	1225	1250
Injury Treatment	175	500
Safe Working Procedures	350	400
Safe Plant and Machinery	500	500
Location Rules	100	100
Permits to Work	350	350
Contractor Control	625	625
Storage Areas	140	140
Visitors	110	110
Waste	50	50
<b>Total</b>	<b>6080</b>	<b>7190</b>
<b>Percentage compliance</b>	<b>84.6</b>	<b>%</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Do all staff receive H&S safety induction training?	Yes	HR dept	50	50
How soon after starting is this: within 1 day, 1 week, 1 month	1 day		100	100
Does it include:				
Accident/hazard reporting?	Yes		50	50
Injury treatment?	Yes		50	50
What do in the event of fire?	Yes		50	50
Introduction to SSL safety policy statement?	Yes		20	20
Introduction to area fire "warden"/"safety rep"/ "first aider" etc	Yes		50	50
Do staff receive other H&S training as required to enable them to do their job without risk to themselves and others?	Yes	In training record	100	100
Is H&S training reviewed as a result of accidents & risk assessments?	Yes	P2 Kulim	50	50
<b>Total</b>			<b>520</b>	<b>520</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Are there health and safety notice boards available for staff to be kept aware of safety issues etc?	yes	Production entrance	100	100
Are the boards regularly updated?	Yes		50	50
Are checks made to see if staff read the boards?	Know that read by some from comments made		15	25
Total			165	175

Question	Answer	Comments / references	Score	
			Actual	Maximum
Is there a safety plan for the current year?	No	Comments as per other sites		100
Are there realistic and measurable objectives?				50
Is it signed off by the senior manager on site?				50
Was its content agreed by the safety committee?				50
Is the plan available to all staff?				25
Is it reviewed regularly?				25
Is an annual "report" published showing which level of achievement against the plan?				50
<b>TOTAL</b>			<b>0</b>	<b>350</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Has the site got means in place to ensure that it complies with local legislation and company procedures?	Yes	SHE Manager	50	50
Does the site know what legislation applies to it?	Yes		50	50
What percentage of legislation is complied with?	All except USECHH		95	100
Has the site got (or has access to) copies of all relevant legislation?	Yes	H&S cabinet in main office area	50	50
Does the site have a means in place to ensure that it complies with all statutory testing?	Yes	Segaran via engineering	50	50
Is all statutory testing carried out?		Book for DOSH		
Equipment that DOSH classify as registerable FMA 1967	Yes	Hoists , DOSH visited on new ownership (03/01), pressure vessels, thermal heater, compressors	50	50
<b>TOTAL</b>			<b>345</b>	<b>350</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Is there a nominated safety person at the site?	Yes	Segaran, as less than 500 don't have to be on site as same company	100	100
Are they trained to either a level required by law or suitable for the site?	Yes	See above	100	100
Is there a programme of training to ensure this person remains appropriately skilled?	Yes	See Kulim	50	50
How long have they been in this job?	See Kulim		N/A	N/A
How much time does this person spend on health and safety each month?	2 days a month	Always contactable	N/A	N/A
Do they believe this to be sufficient?	Yes	Planned to have on site SHE assistance y/c April 2003	50	50
<b>TOTAL</b>			<b>300</b>	<b>300</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Is there a safety committee?	Yes		40	40
How often does it meet?	Monthly	Legally quarterly	10	10
Does the senior manager on site or their representative attend the meeting	Lai Seng	Manufacturing/Technical Manager	40	40
Who else attends?	Staff & reps	10	10	10
Are they trained?	Yes	Internal	20	20
Are minutes published?	Yes		10	10
Are they made available to all staff?	Noticeboard		10	10
Are checks made to ensure that they are read?	No		0	5
Is a request for agenda items sent out prior to meetings?	No		0	10
Has the safety committee got a published remit or constitution?	Legal requirement	4&4 minimum	5	5
Does the committee discuss the accidents that occur on site?	Yes		20	20
Does the committee discuss changes to policies / procedures that will effect the health and safety of staff?	Yes		20	20
<b>Total score</b>			<b>185</b>	<b>200</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Are there procedures for risk assessment?	Yes	See Kulim	100	100
Do the procedures quantify risk?	Yes		50	50
Are staff who undertake RA's appropriately trained?	Yes		50	50
Have all the major H&S hazards on site been identified?	Yes		50	50
Have they been subject to risk assessment? (%)	Yes but not formally recorded as such	As part of redevelopment of site e.g. AG's, P2	75	100
Do risk assessments occur during the validation of new machinery?	Yes, machines are safety assessed but not using RA form	HP procedure	50	50
Are risk assessments reviewed as appropriate?	N/A	Age of site means N/A	N/A	N/A
What percentage of the risk assessments that need to be in place have been completed?	Plan in place	Finish by end of 2002	0	100
Is there a plan for completion of outstanding risk assessments?	Yes		50	50
Are risk assessments readily available for staff to see?	Will be	None available	N/A	N/A
<b>TOTAL</b>			<b>425</b>	<b>550</b>



Question	Answer	Comments / references	Score	
			Actual	Maximum
Has the site got emergency procedures for incidents other than fire?			20	20
Are all emergencies that are relevant to the site covered? e.g. Flood Chemical spillages Loss of services Non- fire evacuation	Yes Yes		30	30
Are the appropriate parts readily available to staff?	Yes		20	20
Are they trained in them?	Yes		20	20
Is this training recorded?	Yes		20	20
Are the procedures regularly tested?	Yes - Chemical spillages		30	30
Are reserve statements available?	As other HP sites	Only HP director or HR manager can speak to press	20	30
<b>TOTAL</b>			<b>160</b>	<b>170</b>

Note: This checklist is for health and safety related risks and not business continuity risks etc.

Question	Answer	Comments / references	Score	
			Actual	Maximum
Are there written fire procedures?	Yes	BKSH7504	30	30
Are these readily available to staff?	Yes Evacuation plans on walls	Via controller	20	20
Are staff trained in them?	Yes	To be converted to Malay	30	30
Is this recorded?	Bell		N/A	N/A
Is there means of alerting staff etc in the event of fire?	monthly		30	30
Is it regularly tested?	Partial , on lines and in most but not all areas	to be installed where required during current building upgrade	N/A	N/A
Is there an automatic fire detection system?	Yes	Needs to occur	30	30
is it tested?	Not all		10	20
are all parts of it tested?	yes	By side exit gate	50	50
Is there a safe place(s) for staff to assemble in the event of fire	Yes	BKSH7506	N/A	N/A
Is there a procedure for alerting the "fire services" ?	Yes	As above	30	30
Is this checked?	Yes		N/A	N/A
Is there emergency lighting?	Yes but not at specific time frame		30	30
If so is it regularly tested?	Monthly / Yearly	Monthly	30	30
Fire extinguishing equipment – is this maintained in working order ?			290	300
<b>Sub total</b>				

Question	Answer	Comments / references	Score	
			Actual	Maximum
Are the appropriate staff trained in the use of the above equipment? Is this recorded?	ERT team established	Training by Bomba- scheduled for September	0	20
Has someone been nominated as being in charge of the evacuation? Have they been trained?	Engineering & dept manager TBA	August	N/A	N/A
Have fire marshals / wardens and / or building clearers been trained?	ERT		15	15
Are regular fire drills conducted?	Planned		0	15
Has a fire risk assessment been undertaken? (UK specific)	N/A		0	30
Who on site is responsible for ensuring the site complies with fire legislation? What means does the site have of knowing it is so compliant	SHE Manager Applying for fire cert Internal only await certificate	No ACE audit	N/A	N/A
Evidence of compliance				
Sub total this page			50	100
Sub total previous page			65	180
			290	300
Total			355	550

Question	Answer	Comments/ References	Score	
			Actual	Maximum
Do procedures exist for H&S incident reporting	Yes	All LRCHP sites covered by same procedures	50	50
H&S incident investigation	Yes		50	50
Do both procedures cover Injury incidents	Yes		50	50
Non-injury / property incidents	Yes		50	50
Near misses / safety hazards	Yes		50	50
Work related health issues	Yes		50	50
Are incident report forms readily available	Yes		50	50
Are any statutory report forms available	Yes		50	50
Are all incidents reported		Not all		
Injury	Yes		50	50
Non-injury / property	Yes		50	50
Near misses / safety hazards	Some		25	50
Work related health issues	None to date		N/A	N/A
Are all incidents that require reporting to regulatory bodies reported in the correct time	Yes		100	100
Are all incidents adequately Investigated (root cause found)	Yes		200	200
Are incident investigators appropriately trained	Yes	Major incidents investigated by SHE manager	50	50
<b>Sub total</b>			<b>875</b>	<b>900</b>

Question	Answer	Comments/ References	Score	
			Actual	Maximum
Are the results of incident investigations used to prevent further occurrences e.g. by changing procedures	Yes		200	200
Are risk assessments reviewed after incidents occur?	Will be once written		N/A	N/A
Are incidents discussed at safety meetings	Yes		50	50
Are monthly statistics provided to the GHSD	Yes		50	50
Does the safety plan have an accident reduction objective	Yes		50	50
Have lost time accidents reduced in the last year	Not applicable	Site only started running under SSL as of April 2001	N/A	N/A
Page total			350	350
Sub total from last page			875	900
<b>TOTAL</b>			<b>1225</b>	<b>1250</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Is there a procedure to ensure the site has the correct amount and that they remain trained?	No	To be trained in September	0	50
Are there sufficient trained first aiders on site?	No	Legally require at least 1	0	100
Is this true at all times when the site is occupied?	See above		0	100
Is there a nurse on site?	Not required		N/A	N/A
Are staff aware of the injury treatment process?	Yes	But cannot work as no first aiders	50	100
Is all treatment given by first aiders or nurses recorded?	Yes	But those providing are not first aiders	25	50
Is there a procedure for calling external medical assistance?	Yes	Site contingency plan	50	50
Is there a first aid room on site?	Not legally required	Is this true - Yes	N/A	N/A
Is there a procedure for ensuring first aid boxes are properly stocked?	Supervisors		50	50
<b>Total</b>			<b>175</b>	<b>500</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Do safe working procedures exist where necessary? (as % reqd)	100		100	100
Are staff trained in them?	Yes		100	100
Are the SWP's based on risk assessment?	Will be	In reality yes but no documentation	50	100
Are the risk assessments cross-referenced?	Will be		N/A	N/A
Do they comply with local legislation and /or company procedures?	As appropriate		50	50
Are they reviewed regularly, to see if they are still valid/ followed and are legal?	Quality system		50	50
<b>TOTAL</b>			<b>350</b>	<b>400</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Is plant and machinery maintained in safe working order? (as %)	Yes 100		50	50
Is this recorded?	Yes		25	25
Are staff trained to use hazardous equipment?		Training records		
Is use prevented until training occurs	Yes		50	50
Is preventative maintenance undertaken?	Yes		50	50
Is it recorded?	Yes		25	25
Are machinery guards regularly checked to see that they work properly?	Yes	P2 daily , others as part of PPM	50	50
Is all machinery capable of being maintained safely?	Yes		50	50
If machinery is unsafe are there procedures in place to ensure that they are not used until they are made safe?	Yes		100	100
Is machinery compliant as a minimum local legislation?	Yes	Above	50	50
How does the site know?	SHE manager		N/A	N/A
<b>TOTAL</b>			500	500



Question	Answer	Reference / comments	Score	
			Actual	Maximum
Are there specific health and safety rules for the location? e.g.  Speed limits Smoking areas Use of mobile phones No parking areas Limited access areas	N/A Canteen Banned in factory	Not many vehicles on site Specific area Authorised only	25	25
Are they communicated to all staff & visitors?	Yes		25	25
Are they complied with?	Yes		50	50
Total	4		100	100

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Does the site have a permit to work system?	Yes	Use standard HP system	50	50
Does it cover: Hot work	Yes		10	10
Work at height	Yes		10	10
High voltage electrics	Yes		10	10
Non standard works	Yes		10	10
Are permits time limited e.g. for a shift ?	Yes		10	10
Are permits covered by risk assessments?	Yes	Risks are assessed, but recording could be improved	30	50
Is the issue controlled?	Engineering manager, supervisors only		50	50
Are the issuers trained?	Taken on own competence		50	50
Is the procedure complied with?	Yes		100	100
How long are used permits kept for after the work is complete?	Will be 12 years	As in quality procedure	N/A	N/A
Where are they kept?	Engineering		N/A	N/A
<b>TOTAL</b>			<b>330</b>	<b>350</b>

Question	Answer	Reference / comments	Score	
			Actual	Maximum
Are there procedures for contractor control?	Yes	Standard LRCHP procedure	100	100
Are they followed for all contractors?	Yes		100	100
Are safety rules issued to contractors?	Yes		50	50
Are contractors vetted for safety performance, if so is this updated as required	Normally use the same contractors so know if are safe		50	50
Is there a site list of safety-approved contractors?	See above		100	100
Is contract work where appropriate subject to a safety assessment before it starts?	Yes		50	50
Are contractors asked to produce method statements?	Yes		50	50
Is an SSL employee assigned to contractors to ensure safety at all times?	Yes		50	50
Are they trained?	Engineering dept		25	25
Are contractors supplied with information on the hazards they may encounter?	Yes		50	50
<b>TOTAL</b>			<b>625</b>	<b>625</b>

Question	Answer	Comments / references	Score	
			Actual	Maximum
Are there procedures for safe storage?	Yes		10	10
Do they cover all aspects relevant to the site?	Yes		20	20
Are they followed?	Yes		30	30
Is storage suitable for purpose ?	Yes		20	20
Is racking etc in good condition?	Not much racking on site		20	20
Is this routinely checked and recorded?	N/A		N/A	N/A
Are reactive chemicals stored separately?	Yes	Outdoor chemical store	20	20
<b>TOTAL</b>			<b>120</b>	<b>120</b>

Question	Answer	Comments / references	Score	
			Actual	Maximum
Are there procedures in place to ensure the safety of all visitors?	Yes	Standard HP procedure	20	20
Do these ensure visitors are told of any hazards they may encounter?	Yes		20	20
what they have to do meet site rules?	Yes		20	20
Where necessary are visitors provided with appropriate PPE etc ?	Yes	GMP mainly no PPE	10	10
Is this readily available?	N/A		N/A	N/A
Where possible are visitors accompanied at all times	Yes		10	10
Are the procedures followed at all times?	Yes		30	30
<b>TOTAL</b>			<b>110</b>	<b>110</b>

Question	Answer	Comments / references	Score	
			Actual	Maximum
Are there procedures to ensure that waste is handled, stored and disposed of safely	Yes		20	20
Are these procedures followed at all times?	Yes	More waste than would be normal due to disposal of raw materials for discontinued glove range	30	30
<b>TOTAL</b>			<b>50</b>	<b>50</b>

## **APPENDIX 8**

(Health and Safety Audit Reports)

## **Health and Safety Manual Gap Analysis Report**

### **LRCHP Batang Kali - July 2002**

This report covers the audit that was conducted w/c 15<sup>th</sup> July 2002. The audit sheets for the manual are appended to this report together with those for the non-manual areas.

#### **Executive Summary**

The health and safety on the site is organised by the Safety Health & Environment Safety Officer who is based at the Kulim site but is at the site normally one week each month.

A significant amount of the safety documentation used at the site is LRCHP documentation and this commonality approach is to be applauded, as it will ensure standards are similar across the sites. Where it is possible to do it is recommended that as much documentation as possible is made common.

A lot of risk avoidance / hazard reduction work has taken place (e.g. the dipping lines & P2), however, most if not all of it has not been formally recorded in risk assessment documentation. There is therefore a need to ensure the site has documentation covering the management of its major risks. Following on from this the site should put in place procedures to ensure that all safety critical safety devices are tested either daily or as often as reasonably practicable (dipping lines).

The training of the Emergency Response Team (ERT) in fire extinguishing techniques and as first aiders that is scheduled for September will ensure that the site meets both Company and legal requirements in these areas.

The one area where the site could show the most improvement with respect to its management of health and safety is to adopt the TQM approach of "Plan, Do Check, Act" (as required by ISO's 9001 which the site has & 14001 which the site is going for) as suggested by OHSAS 18001 (around which the SSL Health & Safety Manual is based). There is no Group policy of external auditing to 18001 at present or in the foreseeable future and auditing will only be internal via the Group Health and Safety Department.

Compliance with the SSL health & safety manual is very good (84%).

Once the recommendations made above are enacted compliance will be almost 100%. The site is to be congratulated on this.



## Audit Overview

### *Health & safety manual*

The areas where Batang Kali shows good compliance with the manual are:

Training  
Health and Safety Communication  
Staff consultation  
Legislative Compliance  
Health and Safety Assistance  
Health & Safety Incident Reporting & Investigation  
Permits to work  
Contractor control  
Emergency Procedures  
Safe Plant and Machinery  
Safe working procedures  
Safe working procedures Location Rules  
Storage Areas  
Visitors  
Waste

The following area shows reasonable compliance

Fire Procedures

The following areas show poor compliance with the manual:

Safety plan  
Injury Treatment  
Risk assessment

The main recommendations from the review are below, for other comments the audit sheets should be read.

The following are the major recommendations as a result of the audit.

#### 1 Safety plan

The site should publish a safety plan, agreed and owned by both the management team (steering committee - currently one committee acts for all 3 LRCHP sites but one is planned for Batang Kali given its remote location compared to the other 2 sites) and the safety committee, with realistic objectives.

LRCHP has already produced 5 objectives for the year and any site plan should encompass these whilst also adding in those that will be site

specific. This would be similar to the UK approach where there are UK objectives - which all sites plan to do and site specific ones.

A site safety plan would help to ensure that safety is managed similarly to quality & environment (9001 & 14001) both of which have published safety plans. A plan will enable the site to prioritise its health and safety activities and also have appropriate resources to ensure that targets are met.

At the moment the only health and safety information that sites sent upwards is accident (negative data), the UK sites are developing Key Performance Indicators (KPI'S) which will allow positive reporting (e.g. the percentage of remedial actions from safety inspections and/or accident reports being completed within the set timeframes) which when finalised (by the end of 2002) will become a requirement of all sites. It is up to the site to decide whether they wish to set up their own safety measures prior to the formalising of the Group ones. If site ones are set feedback centrally would be appreciated so that they could be adopted Groupwide.

The LRCHP objectives for Apr 02 - Mar 03

- a) Reduce accident rate by 25 %
- b) Reduce loss time by 50 %
- c) Plant wide H&S Procedure in dual language
- d) H&S Training for Contractors
- e) OHS 18001 by 2004

## 2 Risk assessments

What SSL are after is documentary evidence that hazards have been identified and either removed or reduced, and that where accidents have occurred or processes changed that appropriate steps have been taken to prevent future accidents. Such an approach is similar to 14001 in that risks need to be identified and then processes put in place to remove or reduce them.

Risk assessment for other than chemical usage (USECHH) is not legally required in Malaysia, however, it is a requirement of the SSL Health & Safety Manual. Also Malaysian law requires the workplace and tasks to be safe – how can this be proven without appropriate documentation.

The site should determine what risk assessments are required and then prioritise them in terms of the hazard involved and incorporate them into an action plan. In the UK the process is normally that each SOP and task is subject to assessment, it should be noted that this may not cover all risk areas and that this is supplemented by assessing the site from goods in to

goods out, this will ensure such things as vehicle movement around the site, goods unloading (by whatever means) are covered.

It is noted that the work that has been undertaken since the auditors previous visit has resulted in considerable risk reduction especially in P2 and the dipping lines. It is also observed that the two LRCHP dipping sites share best practice where possible thus ensuring common standards across the sites.

### 3 Safety stop / guard testing

Following the recent accident in P2 at Kulim it is requested that the site sets up procedures to ensure that safety critical E-stops or safety guards are checked on a regular (ideally daily) basis and the fact recorded. With the continuous lines where daily testing is not practicable due to the loss of production (at least 1 hour) any activation of E-stops should be recorded as proof that they worked.

It is understood that such testing is part of the planned preventative maintenance programme but what is suggested above takes this to another level and is recognised in the UK as best practice and will be become SSL standard procedure.

### 4 Training of the Emergency Response Team (ERT)

Although it is understood certain staff may have received training in the past (pre SSL) as either first aiders or as members of an "on-site" fire team no records exist.

It is a legal requirement to have at least one first aider on site (as the site has more than 25 persons).

Training of the ERT members in the fire procedures (by the fire services - BOMBA) is due in the September as is their training as First Aiders.

It should be noted that staff have received training in evacuation and that in the event of fire staff could successfully evacuate, it is the buildings and plant that would be potentially be at risk - as not all the site is covered by sprinklers.

### *Non -manual elements*

The review of the non-manual elements (listed below) indicates good compliance with the following requirements.

Employees Safety Representatives / Representatives of Employee Safety

Proactive measures  
PPE  
Machinery & Process Risk assessments  
Housekeeping  
Fork Lift Trucks  
Electricity  
Culture

The following areas currently show poor compliance

Noise Assessments  
Chemical assessments

The following area is not applicable to Malaysia

Manual Handling Assessments

The noise assessments are due to be undertaken within a month of the audit and a walk through of the site indicated no areas where hearing protection is likely to be required.

The chemicals used on site are as used at Kulim and therefore the assessments (currently awaited) for there, will be with minor review be suitable for use at Batang Kali. Of the three major areas of concern prior to the takeover, P2, the tipping lines and compounding the first two have been already addressed and action (extraction) is planned to complete the third.

## **Conclusion**

Compliance with the SSL health & safety manual is good (84%).

Once the recommendations made above are enacted compliance will be almost 100%. The site is to be congratulated on this.

## ( LRC HP –BTG KALI )

Non Compliance / observation	Corrective / Preventive Action	By	Due Date	Status
1) Plant wide risk assessment need to be officially completed	a) Formal risk assessment started in early June 2002 and is being carried by out SH& Env personnel. b) The risk assessment will carry out area by area, which at present P2 are in progress.	Segaran	Dec. 2002	In progress
2) Safety device or emergency stops efficiency testing frequency need to be established and formalised.	a) To review plant wide safety device / emergency stop accordingly to machinery and according. b) To establish procedure and frequency testing according to area and practicability of the testing.	Segaran  Segaran / Area Manager	Sept. 2002  Oct. 2002	
3) Establish safety plan for the site H&S objective.	a) To establish a project for the individual objective and assign individual to coordinate the project and progress.	Segaran	August 02	
4) Formal chemical risk assessments need to be completed as per USECHH Regulation 2000.	a) Formal risk assessment will be initiated by early September 2002 upon reviewing the Kulim assessment report, as the process is almost similar to Kulim.	Segaran	Sept. 02	
5) Plant wide emergency light need to		Yee Man		

( LRC HP –BTG KALI )

be tested as per the Factory Machinery Act 1967 requirement – frequency of testing need to be establish and also annually the light need to be tested to ensure it last for an hour.		Seng		
6) Safe Work procedure for plant need to be established based on Risk Assessment	Upon completion of each area's risk assessment, the safe work procedure will be reviewed to ensure the risk assessment finding incorporated.	Segaran / Area Manager	Jan . 03	
7)Emergency Response Team training	To plan training program for Emergency Response Team for both fire fighting and first aid skill. - Fire Fighting skill – Sept. 02 - First Aider – Oct 02	Segaran / Ramesh / Soh	Dec. 02	
8) Detail & Intensive training for forklift driver	a) To arrange the training for all forklift driver and incorporate in training plan	Segaran / Ramesh / Soh	Dec. 02	

## **APPENDIX 9**

(HSE Standard Operating Procedure)

## FOR INFORMATION COPY ONLY

### Standard Operating Procedure

Status: Current - 23/04/2003

Document No.: BKSH7508

Revision: 0

Owner: HPBK Doc  
Control/BatangKali/Malaysia/SSL-International  
HPBK Doc  
Control/BatangKali/Malaysia/SSL-International

Subject: SAFETY HEALTH AND ENVIRONMENTAL PROCEDURE

#### PURPOSE :

To have a comprehensive safety, health and environmental rules and regulation which reflect the requirements.

#### SCOPE :

Plant Wide.

#### DOCUMENTATION :

- 3.1 Mis-accident / Accident Report (SAF-003).
- 3.2 Safety & Health Audit / Inspection Report (SAF-004).
- 3.3 Permit To Work (SAF-006).
- 3.4 Notification Of Work By Contractor (SAF-007).
- 3.5 Notification Of Accident (SAF-008).
- 3.6 Hot Work Permit (SAF-043).
- 3.7 Contractor's Safety Guidelines (SAF-044).
- 3.8 Laporan Kemalangan (JKJ 107) (LRSE-022).
- 3.9 Important Cutting & Welding Permit (LRSE-020)
- 3.10 Hot Work Permit Flow Chart (Attachment #1).
- 3.11 Chemical Exposure Monitoring (SAF-046).
- 3.12 Register Of Legislation (SAF-047).
- 3.13 Environmental Non-Compliance Report (SAF-048).
- 3.14 Emission Monitoring Record (SAF-049).
- 3.15 Internal Environmental Audit Cover Note (SAF-051).
- 3.16 Internal Environmental Audit Response (SAF-052).
- 3.17 Environmental Audit Response Cover Note (SAF-053).
- 3.18 Internal Environmental Audit Notification Letter (SAF-054).
- 3.19 Internal Environmental Audit Report (SAF-055).
- 3.20 Internal Environmental Audit Checklist (SAF-056).
- 3.21 List Of Environmental Records (Attachment #2).
- 3.22 Risk Assessment Guide ( Attachment #3).

#### PROCEDURE:

##### 4.1 ACCIDENT / MIS ACCIDENT / DANGEROUS OCCURRENCE

- 4.1.1 In the event of any accident (minor, major, serious injury or fatality), mis-accident, dangerous occurrence need to be reported to the Area Supervisor.

#### RESPONSIBILITY

All Employee



4.1.2	Area Supervisor will coordinate to overcome the situation by providing briefing, first aid treatment, seeking medical assistance or rectifying the situation. Notify Safety, Health and Environmental Manager or Area Manager verbally or by e-mail.	Area Supervisor
4.1.3	Upon overcoming the situation, the Area Supervisor needs to report in details in the mis-accident / accident report.	
4.1.4	Provide accurate information in the report and if possible attach sketch plan on location of incident.	
4.1.5	Corrective / preventive actions need to be specified in the report to avoid future reoccurrence.	
4.1.6	In the event of seeking medical assistance, the medical practitioner needs to furnish all details about the injury and sign the report.	Medical Practitioner (If Any)
4.1.7	Submit the completed report to the Area Manager for signature and comment if any.	Area Supervisor
4.1.8	Review the report and if satisfactory, the completed report needs to be submitted to the Department Head of the area concern for his concern and approval.	Area Manager
4.1.9	Review the report and if satisfactory, the completed report needs to be submitted to the Factory Manager for his concern and approval.	Department Head
4.1.10	Review the report and if satisfactory, the completed report needs to be submitted to the Safety, Health & Environmental Manager or Safety Committee Chairman within 4 days of the incident taking place.	Factory Manager
4.1.11	Review the report and if any doubtful information is encountered, refer to the Area Supervisor / Area Manager for further clarification.	Safety, Health & Environmental Manager / Safety Committee Chairman
4.1.12	Upon reviewing the report, assign the Safety and Health committee to conduct an investigation on the affected area with the help of the Area Supervisor / Manager and also to evaluate the adequacy of the corrective and preventive action taken. This should be completed within 10 days of the incident taking place.	Safety, Health & Environmental Manager / Safety & Health Committee Members
4.1.13	If necessary contact specialist for assistance.	
4.1.14	Record the outcome of the investigation / audit in the report. If the corrective / preventive actions taken are inadequate, execute immediate temporary changes of rules and regulations as necessary.	
4.1.15	Conduct a follow up audit after 7 days of the temporary implementation to ensure the rules are being strictly followed. If no further mis-accident / accident has taken place and the above rules have been strictly followed, change the affected areas rules and regulation of Safety and Health procedure to reflect the current practice.	
4.1.16	Review and sign the report upon completion of the	Safety, Health &

	investigation.	Environmental Manager
4.1.17	Report to Department of Occupational Safety and Health on this matter by filling JKJ 107 for accidents where there are more than 3 lost days.	
4.1.18	All accident need to be reported to Group Health and Safety Manager.	
4.2	<b><u>SAFETY AND HEALTH AUDIT / INSPECTION</u></b>	
4.2.1	The Safety and Health audit / inspection will be carried out by the Safety and Health Committee members.	Safety, Health & Environmental Manager / Safety & Health Committee Members
4.2.2	Notify the Area Supervisor / Manager of the audit and inspection which will take place.	
4.2.3	The audit / inspection will be carried out in the presence of the Area Supervisor / Manager to clarify and verify any discrepancy.	
4.2.4	If any discrepancy noted, record clearly in Safety and Health Audit / Inspection Report.	
4.2.5	Issue status report upon completion of the audit / inspection as per SAF-004.	
4.2.6	Conducted a follow up audit / inspection in areas where discrepancy was noted.	
4.2.7	Issue status report of the follow up audit / inspection and file the report when discrepancy is cleared.	
4.3	<b><u>PERMIT TO WORK</u></b>	
4.3.1	In the event where need a work to be carried out in areas as below :-	All Employee
4.3.1.1	Access to fragile or sloppy roof area (no permit should be issue during raining / lighting).	
4.3.1.2	High voltage apparatus (440V and above).	
4.3.1.3	Excavation in or around buried services.	
4.3.1.4	Entry to confine space, tank, sumps, sewers, trenches, or any possibilities of oxygen deficiency or toxic release.	
4.3.1.5	Only Engineering Manager or Designee are allowed to issue the permit. In the event where Hot Work Permit is required, Engineering Personnel's Assistance need to be obtained to issue the permit.	
4.3.2	A permit to work must be obtained before commencing.	
4.3.3	Check the area of the work to be done and if the work area / work needs safety requirement such as personal protective equipment advice the person who will be at work.	Area Incharge Personnel
4.3.4	Upon final check, if the area is safe for work, issue	

Permit To Work (SAF-006).

4.3.5 In the event where the work place or nature of job unsafe, do not permit the work to be done. Source for some other mean of doing the job.

4.3.6 Upon receiving the permit to work, place it at the work station and pay extra care when work.

All Employee

4.4 HOT WORK PERMIT (Welding, Gas Cutting, Argon Welding, Grinding And Cutting By Electrical / Mechanical Motor Powered Saw)

4.4.1 In the event if there is a need to perform hot work in any areas (except Engineering Workshop) Hot Work Permit must be obtained before commencing the work.

4.4.2 Approach your immediate superior for Hot Work Permit.

4.4.3 Check the area thoroughly as stated in Hot Work Permit (SAF-043) and ensure the personnel who will perform the work adhered to the safety and health requirement.

Area Incharge Personnel

4.4.3.1 Welding / gas cutting / argon welding - mask respirator, welding shield and leather gloves are worn.

4.4.3.2 Grinding / cutting - ear muff / ear plug, mask respirator, face shield / goggles are worn.

4.4.4 Only Engineering Personnel are allowed to issue Hot Work Permit. In the event where Hot Work Permit is required, Engineering Personnel's Assistance need to be obtained to issue the permit.

4.4.5 Upon checking the area and the personnel, if satisfactory issue Hot Work Permit.

4.4.6 Place Hot Work Permit at the work station and before start the work check again to ensure it is safe to perform hot work as stated on the reverse of the side of the Hot Work Permit.

All Employee

4.4.7 Upon completion, check the area to ensure no left over fire frame or sources from the hot work that could lead to fire.

4.4.8 Inform the area incharge personnel upon completion.

4.4.9 30 minutes after completing the work, check the area to ensure it is safe.

Area Incharge Personnel

4.4.10 Sign the Hot Work Permit and file.

4.4.10.1 Attachment #1 show the hot work flow chart.

4.4.10.2 All work area need to be isolated and clearly labelled.

4.5 CONTRACTOR

4.5.1 As long as contractors are in LRCHP premises, they are subjected to our rules and regulation.

All Employee

4.5.2 Each contractor will be issued with Contractors Safety,

#### Health and Environmental Guidelines (SAF-044).

- |         |  |  |
|---------|--|--|
| 4.5.3   | Upon receiving Contractor's Safety Guidelines, read and sign return to the person responsible for your presents.   | Contractor   |
| 4.5.4   | Upon receiving from contractor, sign the contractor's Safety Guidelines as to witness that the contractor agreed on the rules and regulation of our company.     | Safety, Health & Environmental Manager / Plant Engineer / Area Manager |
| 4.5.5   | Upon sign the conductor's safety guidelines, return a copy to the contractor and one to the Area Manager / Plant Manager. File a copy as reference :-            |  |
| 4.5.5.1 | Contractor's Safety Guidelines need to issue to a contractor once only except if there is any changes in the existing one.                                       |  |
| 4.5.6   | Before commencing any work Notification Of Work By Contractor (SAF-007) need to filled and return to the area incharge personnel or person you are dealing with. | Contractor   |
| 4.5.7   | Review the Notification of Work by Contractor and pass to Safety, Health & Environmental Manager / Safety Committee Chairman upon signing.                       | Area Incharge Personnel  |
| 4.5.8   | Review the Notification of Work by Contractor and if necessary contact the area incharge personnel.  | Safety, Health & Environmental Manager / Safety Committee Chairman     |
| 4.5.9   | Sign the Notification Of Work By Contractor if all are in order and return 2 copies to the area incharge personnel who in turn will pass one to contractor.      |  |
| 4.5.10  | All contractors must be given training of Safety, Health and Environmental as per (SAF-044) content.   |  |
| 4.5.11  | Issue one copy to Security Guard as approval to access and work in the premises.   |  |

#### 4.6 ENVIRONMENTAL MANAGEMENT

- |           |   |  |
|-----------|---|--|
| 4.6.1     | <u>Maintenance And Review Of Local Legislation</u>  |  |
| 4.6.1.1   | Review all the legislation related to Environmental Management System as follows at least every 6 months once or whenever there are changes in the legislation. |  |
| 4.6.1.1.1 | Environmental Quality Act 1974 - Act 127.   |  |
| 4.6.1.1.2 | Factory and Machinery Act 1967 - Act 139.   |  |
| 4.6.1.1.3 | Occupational Safety and Health Act 1994 - Act 514.  |  |
| 4.6.1.1.4 | Local Government Act - 1976 - Act 171.  |  |
| 4.6.1.1.5 | Malaysia Law Act 551 - Malaysia Rubber Board (LGM) 1996.  |  |

- 4.6.1.2 Obtain new set of the legislation and if any changes to the existing one, ensure it is available at all time for those whom need to further clarify any issues related to the legislation.
- 4.6.1.3 Update the Register of Legislation (SAF-047) to reflect the current changes and send to all area managers and department heads.
- 4.6.1.4 Update the management team on the changes in the legislation and also on the issue, which could have environment impact. Discuss the issue and the necessary action to be undertaken by the Area Manager to ensure the environment impact can be rectified.
- 4.6.1.5 Issue Environmental Non Conformance Report (SAF-048) to the Area Manager of the area concern on this issue.
- 4.6.1.6 The Area Manager upon consultation with relevant personnel will come up with the project plan on how to rectify the issues to reflect the current changes and reply within 14 working days to the Safety, Health and Environmental Manager. A copy of the project plan need to be submitted to the Safety, Health and Environmental Manager and proceed with action of 4.6.2 (Environmental Monitoring action no. 4.6.2.4 to 4.6.2.6.).
- 4.6.1.7 All the legislation will be kept in Safety, Health and Environmental office.

Area Manager

Safety, Health &  
Environmental Manager

#### 4.6.2 Environmental Monitoring

- 4.6.2.1 The air emission for the following areas will be monitored once every three months :

##### 4.6.2.1.1 Main Plant

AG Plant - HCl, Chromic Acid,  
Polymer and MEK.  
Process II - Chlorine Scrubber and  
HCl Scrubber.

- 4.6.2.2 All these monitoring will be monitored using Dragger Tube and the findings will be recorded in (SAF-049) and results will be compared against the Environmental Quality Act 1974 Act 127 (Clean Air Regulation 1978) standard to ensure it is within the permissible level. If the result are above the permissible level then the following action need to be taken.
- 4.6.2.3 Repeat the monitoring continuously for three days and if the result is higher than permissible level then notify the Area

Manager immediately by issuing Environmental Non Conformance Report (SAF-048) on the non-compliance of the air emission for the area concerned.

- 4.6.2.4 Check and review the operation concerned and if any abnormalities are found, rectify the problem and reply within 7 working days on the corrective action taken to rectify the problem.

Area Manager

- 4.6.2.5 If investigation shows that there are no changes or abnormalities to the process and suspected the need is to upgrade the operation, reply within 7 working days on what further action to be taken with a detailed project with time scale. All the rectification action need to comply with Environmental Quality Act 1974 (Act 127).

- 4.6.2.6 Review the report and if necessary liaise with the Area Manager over the issues and extend your assistance if needed. Monitor again the air emission upon the rectification work is completed. If the emission comply with standards, sign off and file the report. If air emission monitoring result failed, repeat action 4.5.2.3 to 4.5.2.6.

Safety, Health &  
Environmental Manager

- 4.6.2.7 The emission for the following area will be monitored on annual basis by Qualified Vendor :

4.6.2.7.1 Main Plant

AG Plant - HCl, Chromic Acid, Polymer.

Process II - Chlorine Scrubber and HCl Scrubber.

QA Fume Cupboard.

- 4.6.2.8 Upon obtaining the result, review the analysis report and compare against the Environmental Quality Act 1974 Act 127 (Clean Regulation 1978) standard to ensure it is within the permissible level. If the result are above the permissible level then repeat action 4.6.2 (Environmental Monitoring action 4.6.2.2 to 4.6.2.5).

4.8 MONITORING IN ENGINEERING DEPARTMENT as per Doc. No. BKEN1000.

- 4.8.1 For activities 4.7 and 4.8 the activities will be carried out as per SOP BKEN1000. A copy of all the monitoring results need to be submitted to Safety, Health and Environmental Manager for review and filing purpose. If any results which does not comply with the applicable standards in the Environmental Quality Act 1974 - Act 127, corrective action need to be taken to rectify the situation immediately and notify

All Employee

Safety, Health and Environmental Manager.

4.8.2 Issue Environmental Non Compliance Report - (SAF-048) on the non-compliance to the Area Manager within 24 hours upon receiving the report or upon notified of the situation.

Safety, Health & Environmental Manager

4.8.3 Upon completing of appropriate action, arrange for lab analysis to confirm the water / emission discharges is within the permissible level and reply the non-conformance report within 7 working days.

Area Manager

4.8.4 If investigation, shows that these are no changes or abnormalities to the process and suspected there is a need to upgrade the operation, reply within 7 working days on what further action to be taken with a detailed project with time scale. All the rectification action need to comply with Environmental Quality Act 1974 (Act 127).

4.8.5 Review the report and if necessary liaise with the Area Manager over the issues and extend your assistance if needed. Monitor again the waste discharge / air emission again upon the rectification work is completed. If the emission comply with standards, sign off and file the report. If the monitoring result failed, repeat action 4.6.2 (Environmental Monitoring action 4.6.2.3 to 4.6.2.6).

Safety, Health & Environmental Manager

#### 4.9 NON COMPLIANCE (Breach Of Regulation And Procedure)

4.9.1 If any environmental non-compliance is spotted or suspected, inform the Safety, Health and Environmental Manager / Designee immediately.

All Employees

Note : Also inclusive of external Environmental Inquiries).

4.9.2 Check and verify on the complaint / non- compliance by checking the area for environment impact.

Safety, Health & Environmental Manager / Designee

4.9.3 For air emission, if the emission can be measured then proceed to measure and verify if the emission is above the permissible level. If result exceeded, then issue Environmental Non Compliance Report (SAF-048) to the area concerned.

4.9.4 Update the Manufacturing Director, Operation Director, the Management Team and SSL International Quality and Environmental Controller.

4.9.5 Check and review the operation concerned and if any abnormalities found, rectify the problem and reply within 7 working days on corrective action to be taken to rectify the problem.

Area Manager

4.9.6 If investigation shows that there are no changes or abnormalities to the process and suspected the need is to upgrade the operation, reply within 7 working days on what further actions to be taken with a detailed project with time scale. All the rectification action need to comply with Environmental Quality Act (Act

All Employee

127).

4.9.7 Review the report and as / if necessary liaise with the Area Manager over the issues and extend your assistance if needed. Monitor again the air emission upon the rectification work is completed. If the emission comply to standards, sign off and file the report. If failed repeat action 4.9.4 to 4.9.7.

Safety, Health &  
Environmental Manager

4.9.8 For water discharge if the water appearance to the opinion and jurisdiction of the Safety, Health and Environmental Manager appear to be above the permissible level then collect the water sample and send for lab analysis. While waiting for the lab result which usually will take 10 to 14 working days issue Environmental Non Compliance Report (SAF-048) to area concerned and proceed action 4.9.8 to 4.9.14.

4.9.9 Check and review the operation concerned and if any abnormalities are found, rectify the problem and reply within 7 working days the corrective action to be taken to rectify the problem.

Area Manager

4.9.10 If investigation shows that there are no changes or abnormalities to the process, reply within 7 working days and do not do any additional major corrective or preventive action until the lab water analysis is available.

4.9.11 Once the water analysis result is available, review against the relevant regulation. If the result fall within the permissible level, inform the Area Manager concerned and update Environmental Non Compliance Report (SAF-048) with the status.

Safety, Health &  
Environmental Manager

4.9.12 If the result is above the permissible level, reissue Environmental Non Compliance Report (SAF-048), attach a copy of the lab result to the Area Manager.

4.9.13 Upon receiving the Environmental Non Compliance Report (SAF-048), work out appropriate corrective and preventive action to be taken and reply within 7 working days with a detailed project plan with time scale. All the rectification action need to comply with Environmental Quality Act (Act 127).

Area Manager

4.9.14 Review the report and as / if necessary liaise with the Area Manager over the issues and extend your assistance if needed. Monitor again the waste water discharge upon the rectification work is completed. If the discharge comply with the EQA Act 1974 (Act 127) standards, sign off and file the report. If the discharge (waste water / emission) failed to comply, issue again Environmental Non Conformance Report (SAF-048) and repeat action 4.9.8 to 4.9.13.

Safety, Health &  
Environmental  
Manager

4.9.15 Notify Department of Environment if any air emission / waste water discharged above EQA Act 1974 (Act 127) when it failed again action 4.9.7 and 4.9.13.

#### 4.10 COMMUNICATION (EXTERNAL)

4.10.1 All environmental related complaint and enquiries

All Employee



need to be forwarded to Safety, Health and Environmental Manager which to be responded within 10 working days.

- 4.10.2 Upon received of enquiries, review the content and categorise the complaint / enquiries as :-

4.10.2.1 Environmental Enquiries.

4.10.2.2 Environmental Impact Enquiries.

- 4.10.3 Record in the Environmental Enquiries Log.

- 4.10.4 If it is an Environmental Enquiries, review the required information and reply to them accordingly with the relevant supporting document if any.

Note : Environmental Policy needs to be issue whenever it is requested.

- 4.10.5 If it is an Environmental Impact Enquiries, check the possible areas concern with the Area Manager and investigate the probable causes.

- 4.10.6 Upon investigation if the enquiries is unjustified (not associated with any environmental non-compliance), reply according to address this issue.

- 4.10.7 Upon investigation if the enquiries is justified (environmental non-compliance), provide a written response with the correction and preventive measures which are in place to overcome the issues and also to prevent future re occurrence which are taken in accordance to (Non Compliance).

- 4.10.8 All Environmental Enquiries need to be update to SSL Quality and Environment Controller.

- 4.10.9 All the inquiries need to be updated to Manufacturing Director, Operation Director and the Management Team.

Note : All Environmental Records will be filed at Safety, Health and Environmental office for 12 years.

#### 4.11 COMMUNICATION (INTERNAL)

- 4.11.1 All environmental related communication will be communicated by the internal e-mail system (Lotus Notes) to the respective Area Supervisors, Area Managers, Departmental Heads and Manufacturing Director, who in turn will brief their staff accordingly.

- 4.11.2 Environmental management programme (objectives and targets) will be updated on a monthly basis by e-mail to the respective Area Supervisors, Area Managers, Departmental Heads and Operations Director, who in turn will brief their staff. Updates will also be placed on the main LRCHP notice boards.

#### 4.12 NEW PROJECT / NEW MACHINERY INSTALLATION

- 4.12.1 In the event where there is a need to install new machinery or new construction (project), the details of the above need to be furnish to the Safety, Health and

Safety, Health and Environmental Manager

Environmental Manager.

- 4.12.2 Check the above area and the details for safety, health and environmental compliance. If any additional requirement needed, advised the relevant personnel accordingly.
- 4.12.3 Upon confirming all the rules and regulation of internal and regulatory, notify to relevant regulatory bodies for permission and approval.

#### 4.13 NOISE LEVEL MONITORING

- 4.13.1 Noise level monitoring for the site will be conducted once a year as according to the Factory and Machinery Act 1967 (Act 139) for through DOSH (Department of Occupational Safety & Health) approved personnel.
- 4.13.2 Once the result is obtained, take appropriate action as follows :
  - 4.13.2.1 If noise level is at or above action limit (85dB(A)), conduct a positive monitoring to confirm the results obtain.
  - 4.13.2.2 If noise level is below action limit (85dB(A)), no further monitoring will be required.

Note : If any area which the noise level is above the permissible level, an engineering control measure and others means of control measure need to be taken before proceeding to the last option that is providing personal protective equipment (hearing protection device).

- 4.13.3 During the positive monitoring if the monitoring results indicates that the employees are exposed to noise at and above action limit, then a audio metric testing programme need to arranged.
- 4.13.4 Before the audio metric testing is conducted the employee whom need to undergo this testing required to be away from work at least for 14 hours or the last time worked in the work station is 14 hours ago.
- 4.13.5 The audio metric testing programme need to be repeated as follows for those whom are exposed to noise level at or above action level.
  - 4.13.5.1 Every year for an employees whose baseline audio gramme shows a hearing impairment or where his annual audio gramme shows a standards threshold shift.
  - 4.13.5.2 Once in every two years for employees exposed to noise level at or above the action level but less than the limits permissible level.

#### 4.14 CHEMICAL EXPOSURE / EMISSION MONITORING

- 4.14.1 The chemical exposure monitoring will be carried out

on monthly basis by using the following equipment :-

- 4.14.1.1 Drager accuro pump - break the required chemical tube both side and insert the tube into the pump point and press the pump to the required number as per the respective chemical tube requirement.
- 4.14.1.2 The drager accuro pump doesn't require calibration as per the manufacturer's advice.
- 4.14.1.3 Riken keiki - gas watch master for Oxygen and Hydrogen Sulfide monitoring.
- 4.14.1.4 This unit will be calibrated every six months once.
- 4.14.1.5 The chemical exposure / emission monitored will be as per (SAF-046).
- 4.14.2 Upon obtaining the results advise the relevant personnel on this if any expose or emission above the permissible level.

#### 4.15 INTERNAL ENVIRONMENTAL AUDITING

- 4.15.1 The site Internal Environmental Audit will be carried in accordance with SSL International Group Environmental Auditing procedure - SP524 and Doc. 109.50.

Note : This group procedure will be filed in QA Administration and available for reference or viewing.

- 4.15.2 The following formats will be used for the Internal Environmental Auditing, which included notification, replying response and reporting.
  - 4.15.2.1 SAF-051 - Internal Environmental Audit Cover Note.
  - 4.15.2.2 SAF-052 - Internal Environmental Audit Response.
  - 4.15.2.3 SAF-053 - Environmental Audit Response Cover Note.
  - 4.15.2.4 SAF-054 - Internal Environmental Audit Notification Letter.
  - 4.15.2.5 SAF-055 - Internal Environmental Audit Report.
  - 4.15.2.6 SAF-056 - Internal Environmental Audit Checklist.
- 4.15.3 All the Internal Environmental audit related documentation need to be filed in Safety, Health and Environmental office.
- 4.15.4 All matters and reports related Internal Environmental Auditing which meant SSL Quality and Environment Controller will be handled by Safety, Health and Environmental Manager.
- 4.15.5 All Internal Environmental Audit correspondence will be via e-mail (Lotus Note) and will not carry any signature except for audit response.

Internal Auditor

Safety, Health &  
Environmental Manager

4.16 BOUNDARY NOISE LEVEL MONITORING

- 4.16.1 Boundary noise level monitoring will be carried out on annual basis by approved vendor.

4.17 CHEMICAL RISK EVALUATION (RISK ASSESSMENT)

- 4.17.1 All chemicals used in the plant need to be reviewed and evaluated by Safety, Health and Environmental department before approving for use.
- 4.17.2 All chemicals used in the plant need to be reviewed and evaluated to ensure that the chemical is safe for use and it is not a banned substance. The chemical will be reviewed and evaluated by using SAF-058.
- 4.17.3 If the chemical is suitable and safe for use, permitted it for use and it is not suitable / safe or in banned substance list, do not allowed the chemical to be used or stored in the sites.
- 4.17.4 No chemicals are allowed to be used in the plant without the Chemical Evaluation (Risk Assessment) completed and approval obtained from Safety, Health and Environmental department.

4.18 RISK ASSESSMENT

- 4.18.1 All the activities in plant need to reviewed and evaluated for it risks associated with.
- 4.18.2 The risk assessment will be carried as per Attachment # 3.
- 4.18.3 Complete the SAF-058 and advise the respective department accordingly for appropriate action and conduct follow up where necessary.
- 4.18.4 If any new activities introduced in the plant, Safety, Health and Environmental department need to be notify in advance to ensure the Risk Assessment completed before allowing for operation.

## 0Attachment# 1

### Hot Work Permit Flow Chart

#### ENGINEERING / AREA IN CHARGE PERSONNEL:

Check the area of the work to be carried out and ensure it is suitable for hot work. Sign the Hot Work Permit if the area is safe for hot work environment.

# Free from flammable / combustible material and fire extinguisher and safety gear is available.

(If Any)

\* In case of contractors involved, the person responsible for their presence should lead them to area incharge personnel.

#### AREA IN CHARGE PERSONNEL :

Ensure safety standards and precautions are taken and counter sign the Hot Work Permit to allow the hot work to be carried out if the condition is satisfactory.

# Safety standards and precautions : Free from flammable / combustible material and extinguisher and safety gear is available.

#### PERSON WHO CARRIED OUT THE HOT WORK :

Ensure all safety standards and precaution are strictly adhered to.

Start the work and upon completion ensure the area is free from any

source of ignition. Submit the workpermit to the area uncharge personnel for final verification.

#### AREA INCHARGE PERSONNEL :

Upon completion of hot work, verify the area to ensure it is free from any source of ignition and sign the work permit.

**JOB COMPLETED**

## **Attachment# 2**

### **List Of Environmental Records**

- 6.1 SAF-047 - Register Of Legislation
- 6.2 SAF-049 - Emission Monitoring Record
- 6.3 BKSH504.1 - Chemical / Oil Spillage Report
- 6.4 BKSH504.2 - Fire / Explosion Incident Report
- 6.5 Water Analysis Result From Independent Laboratory
- 6.6 Air Emission Analysis From Independent Laboratory
- 6.7 DOE Correspondence Letter (In / Out)
- 6.8 Impact Evaluation Reports
- 6.9 Internal Audit Report / Response - Independent
- 6.10 Certification Body Audit Report / Response
- 6.11 SAF-050 - Chemical Transportation Briefing Notes
- 6.12 External Communication
- 6.13 Chlorine Detector Calibration Records
- 6.14 HCl Detector Calibration Records
- 6.15 SAF-039 - Chlorine Exposure Monitoring Record
- 6.16 SAF-048 - Environmental Non Compliance
- 6.17 Domestic Waste Disposal Receipt From Local Council
- 6.18 Fuel Consumption Records For Bus / Van
- 6.19 Annual Waste Report For Group
- 6.20 Puspakom Report
- 6.21 SAF-044 - Contractor's Safety, Health And Environmental Guidelines
- 6.22 SAF-051 - IEA Cover Note
- 6.23 SAF-052 - IEA Audit Response
- 6.24 SAF-053 - IEA Response Cover Note
- 6.25 SAF-054 - IEA Notification Letter
- 6.26 SAF-055 - IEA Audit Report
- 6.27 SAF-056 - IEA Audit Checklist
- 6.28 DOE Approval Reference Letter
- 6.29 Noise Level Monitoring Report
- 6.30 Consignment Note For Waste Disposal
- 6.31 Fire Drill Report
- 6.32 Training Record
- 6.33 SAF-057 - HCl Acid Sensor Monitoring Record
- 6.34 EFF-001 - Daily Effluent Plant Operation Log Sheet
- 6.35 EFF-002 - Inventory Of Scheduled Waste
- 6.36 E001 - Sodium Hydroxide Preparation
- 6.37 E002 - Actipol Preparation
- 6.38 E003 - Polyelectrolite Polymer Preparation Lot Card
- 6.39 E004 - Urea Preparation Lot Card

## RISK ASSESSMENT GUIDE

### Standard conditions of assessment

This list is designed to assist assessors in undertaking the assessment.

1. That employees will wear all specified work wear / PPE (e.g. gloves/overalls/footwear/hair nets) and have removed or made safe by covering, any item likely to cause injury (rings, watches, ties, etc.) by entrapment etc.
2. The task is carried out by persons with no existing medical condition that requires special consideration.
3. Competent supervision is present.
4. Adequate general environmental conditions exist (lighting, heating, etc.).
5. Work equipment is suitable, sufficient and adequately maintained and subject to "before-use checks".
6. The employee is engaged in activities defined in his or her contract of employment.
7. The task is carried out by a competent (trained or sufficiently experienced) or, where appropriate, an authorised person.
8. That employees will utilise all control measures provided for his or her safety.
9. That employees will report any faults in the equipment or shortcomings in the safety system to his or her line manager before commencing the task.

If any of the above is not present then the fact must be recorded on the assessment sheet as a hazard.

# HAZARD GUIDEWORDS

<b>1. MECHANICAL</b>	<b>6. FIRE &amp; EXPLOSION</b>	
Entanglement	Gases/Flammable atmosphere	
Friction/Abrasion		
Cutting	<b>9. RADIATION</b>	
Shearing		
Stabbing/Puncturing	<b>10. WORK ENVIRONMENT</b>	
Impact	Noise	
Crushing	Vibration	
Drawing in	Light	
Fluid Injection	Humidity	
Touch	Ventilation	
Ejection	Temperature	
Guarding	Pressure / vacuum	
<b>2. TRANSPORT</b>	<b>11. WORK ORGANISATION</b>	
	Poor Maintenance	
<b>3. MANUAL HANDLING</b>	Poor Supervision	
	Lack of Training	
<b>4. ELECTRICITY</b>	Lack of Information	
	Inadequate Instruction	
<b>5. ACCESS</b>	Operator/Machine Interface	
Slips/Trips/Falls		
Falling Objects	<b>12. PERSONNEL</b>	
Confined Space	Physically – not suited to work	
Working at Height (>2m)	Mentally – not suited to work	
<b>6. HAZARDOUS SUBSTANCES</b>	Unsafe Behaviour	
Toxic	Stress	
Irritating	Young persons	
Sensitising	Pregnant women	
Flammable	<b>13. MISCELLANEOUS</b>	
Corrosive	Maintenance	
Explosive	Contractors	
Carcinogens	PPE	
<b>7. PARTICLES AND DUST</b>	Storage	
Inhalation	Storage racking	
Ingestion	Containment (materials)	
Abrasion of skin	Cleaning	
Abrasion of eyes	Setting up machine	



**RISK ASSESSMENT FORM**

Activity or Process Assessed: \_\_\_\_\_

**SUMMARY**Summary of Key Concerns \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**Recommendations for Remedial Action****Short Term:**

Recommended action	Who actioned	Proposed completion date

**Medium Term:**

Recommended action	Who actioned	Proposed completion date

**Long Term:**

Recommended action	Who actioned	Proposed completion date

Assessor(s): \_\_\_\_\_

Signature(s): \_\_\_\_\_

Date of Assessment: \_\_\_\_\_

Follow-up review required: \_\_\_\_\_ By whom: \_\_\_\_\_

Sign-off by Manager: \_\_\_\_\_ Date of review: \_\_\_\_\_

Manager's Name: \_\_\_\_\_

RISK ASSESSMENT - 1.000		RISK / REFERENCE	
Name of Assessor:		Date:	
Street of			

### Risk assessment overview

Department		
Task/Activity/Process Name & any reference number		
Staff involved (numbers & grades)		
How often task carried out		
How long task lasts		
Brief Description of Task (use cross reference to work procedures etc)		
Accident History		
Maximum Potential Loss(es)		
Legal/ Regulatory Requirements		
Relevant Codes Of Practices/Guidance		

# Risk Assessment Form - Hazard / Hazardous

Name of Assessor: \_\_\_\_\_ Date: \_\_\_\_\_

Sheet of \_\_\_\_\_

1 Description Of Hazard	Likelihood of Hazard Occurring	Severity Of Outcome	Risk Ranking (L,M,H)
Current Control Measures	Recommended remedial actions		

2 Description Of Hazard	Likelihood of Hazard Occurring	Severity Of Outcome	Risk Ranking (L,M,H)
Current Control Measures	Recommended remedial actions		

3 Description Of Hazard	Likelihood of Hazard Occurring	Severity Of Outcome	Risk Ranking (L,M,H)
Current Control Measures	Recommended remedial actions		

4 Description Of Hazard	Likelihood of Hazard Occurring	Severity Of Outcome	Risk Ranking (L,M,H)
Current Control Measures	Recommended remedial actions		

## **APPENDIX 10**

Health and safety performance reports)

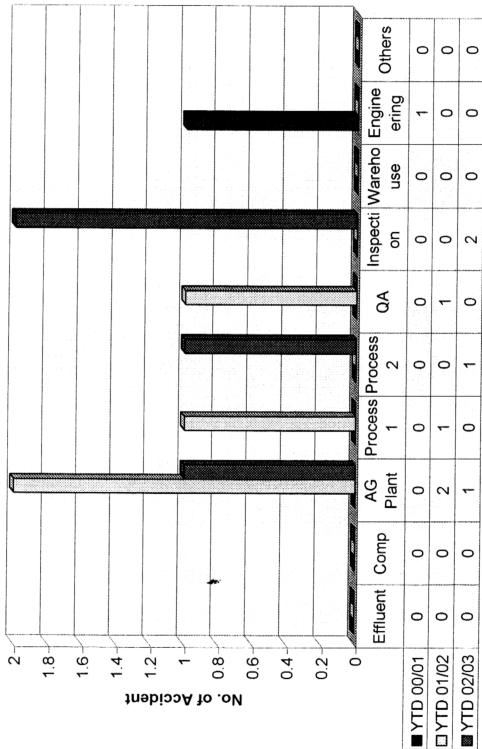
LRC HP (BATANG KALI) )- SAFETY & HEALTH PERFORMANCE

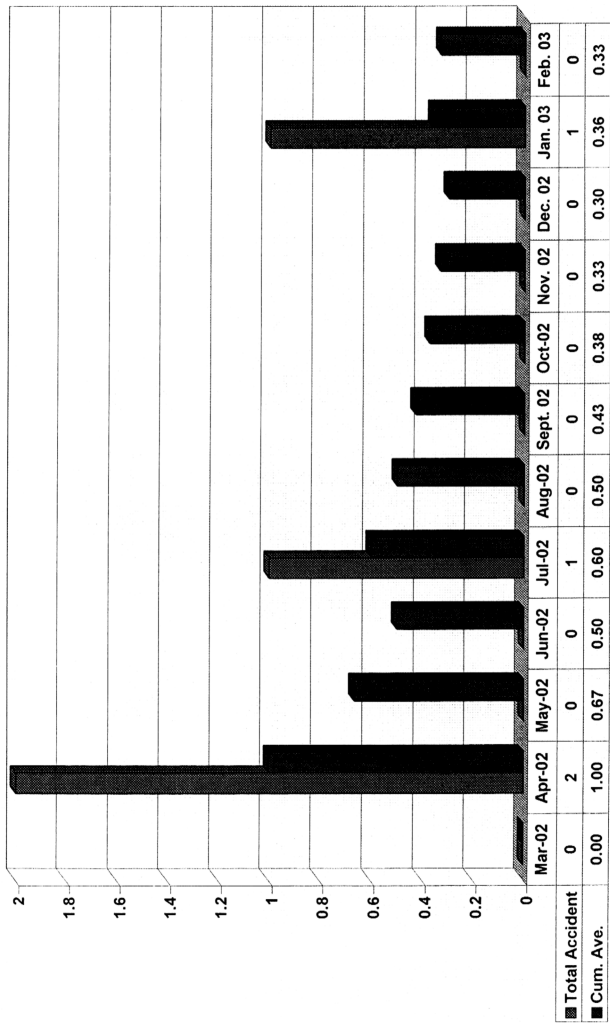
AREA	NO. OF ACCIDENT					NO. OF LOSS DAYS										As Of To Date	
	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	Feb.03	As Of ToDate	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	Feb.03	As Of To Date	
AG PLANT	0	2	1				0	3	0	61	2				0	63	
ENGINEERING	1	1	0				0	2	5	7	0				0	12	
PERSONNEL	0	0	0				0	0	0	0	0				0	0	
MANUAL PACK	0	0	2				0	2	0	0	15				0	15	
FINANCE	0	0	0				0	0	0	0	0				0	0	
PROCESS 1	0	0	0				0	0	0	0	0				0	0	
COMPOUNDING	0	0	0				0	0	0	0	0				0	0	
WAREHOUSE / SHIPPING	0	0	0				0	0	0	0	0				0	0	
PROCESS 2	0	0	1				0	1	0	0	6				0	6	
EFFLUENT	0	0	0				0	0	0	0	0				0	0	
QUALITY ASSURANCE	0	1	0				0	1	0	8	0				0	8	
TOTAL	1	4	4				0	9	5	76	23				0	104	

NO. OF LOSS TIME ACCIDENTS	2000/01		2001/02		2001/02 - 02 Sept. 00 - 02 Sept. 00	
	Feb.03	0	1	4	9	9
TOTAL NO. OF RECORDED ACCIDENTS	0	0	1	4	9	9
TOTAL NO. OF LOSS DAYS	0	0	5	76	104	104

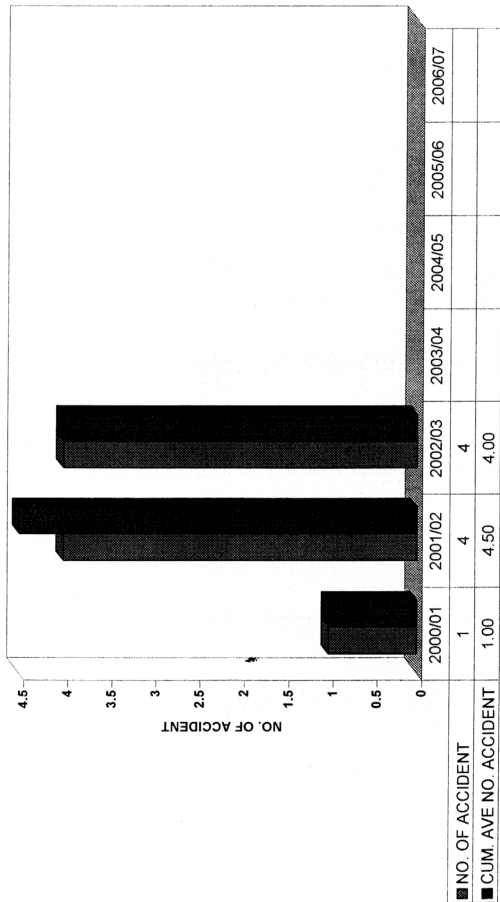
LRC HP - Btgg Kali

No. of accidents YTD 01/02 & 02/03 - By Area As of Feb. 2003



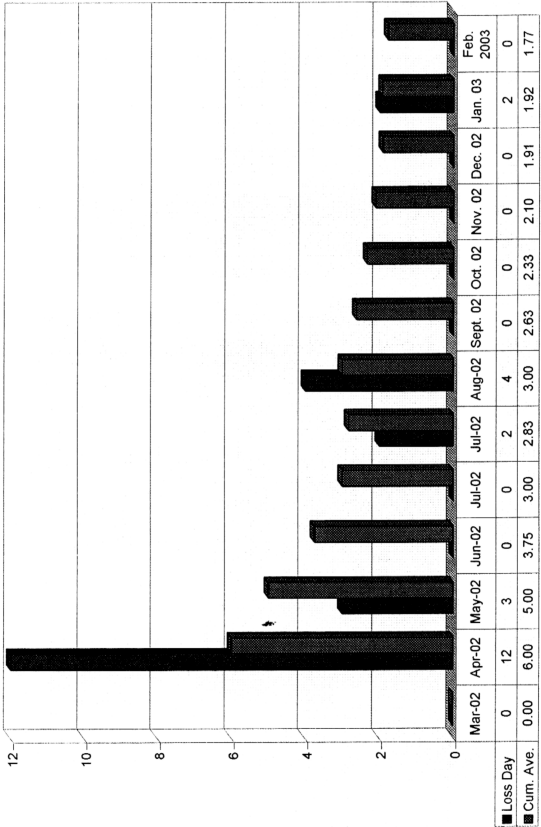


# LRC HP (BTG KALI )ACCIDENT RATE (YEAR) - As Of FEBRUARY 2003

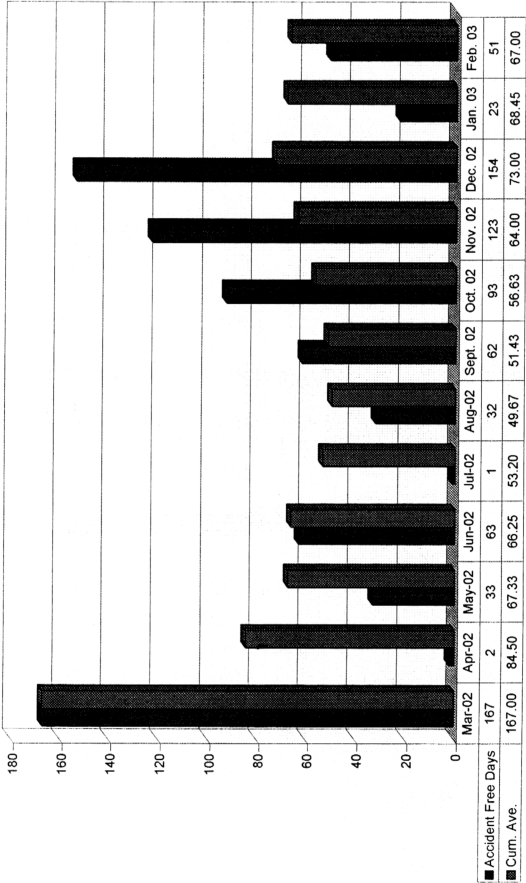




LRC HP -BTG KALI - ACCIDENT LOSS DAYS as of February 2003



LRC HP -BTG KALI - ACCIDENT FREE DAYS as of February 2003



# **APPENDIX 11**

(Environmental Policy)

Holder: HPBK DOC. CONTROL

Sign: *Phuon*

Date: 18/11/00.

REF: SP 002  
DATE: Dec 2001  
ISSUE: 9  
PAGE: 9 of 21**TITLE:****ENVIRONMENTAL POLICY**

SSL International plc is dedicated to producing high quality healthcare and personal protective products in the areas of condoms, medical gloves, wound care, dressing retention, compression therapy, infection control, orthopaedics and over-the-counter (OTC) products and industrial gloves which can safely fulfil customer needs and expectations.

The Company sees avoidance of pollution and other forms of environmental care in its operations as part of a commitment to health in the community.

Specifically it is the Company's policy: -

- to maintain a management system, as defined by the environmental standard ISO 14001

- to comply with all environmental legislation and regulations which cover its activities and products

- to measure and keep records of its environmental impacts relating to climate change, ozone depletion, creation of wastes, air quality, water quality, habitat protection and possible toxification of ecosystems

- to promote wherever possible the sustainable use of natural resources and maintain fairness in its global environmental and social policies

- to set targets to reduce these impacts on the environment, which reflect its commitment to continual improvement in environmental performance and to the health and well being of the community, and review these rigorously

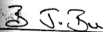
- to publish objectives and targets in both internal and external newsletters or brochures

- to promote an open exchange of environmental information with customers and suppliers and work with them where appropriate to reduce any significant environmental impacts within its supply chains

- to give training and raise the awareness of its employees about the need for environmental care in all its activities.

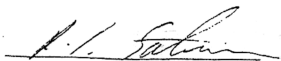
- to note best practise in its industry as a guide to setting levels of environmental performance which at least equal the best in the healthcare industry.

- to work within its trade associations to promote safe handling of healthcare products by users.



Brian Buchan

Chief Executive

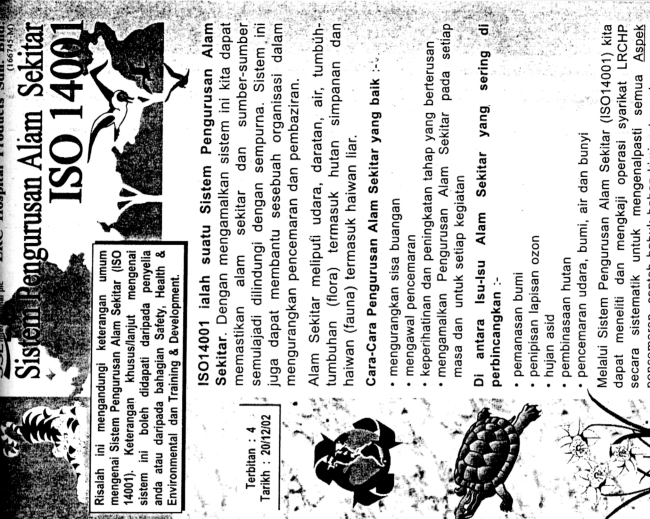


Peter Stephenson

Group R&amp;D Director

## **APPENDIX 12**

(ISO14001 Information - LRC)



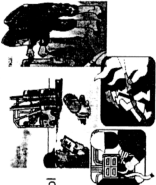
- Bersaing untuk terus kekal dalam pasaran antarabangsa terutamanya dengan syarikat pengeluar sarung tangan yang lain.
- Menjamin pekerjaan dan pendapatan yang dinikmati sekarang.
- Sistem piawian ini akan menyebabkan syarikat LRCHP menjadi satu tempat kerja yang betul-betul selamat.
- Syarikat LRCHP akan menjadi di antara syarikat sarung tangan antarabangsa yang pertama di Malaysia yang berjaya mendapat pengiktirafan ini; ini adalah satu kebanggaan bagi semua warga LRCHP dan pada masa yang sama akan memupuk satu perasaan tanggungjawab di kalangan semua.
- Melalui pencapaian ini kita dapat memastikan dunia ini terus dilindungi untuk generasi akan datang.



Terbitan : 4  
Tarikh : 20/12/02

#### Maklumat lain yang perlu anda fahami :

- Anda harus baca dan fahami peraturan dan ketetapan umum mengenai Keselamatan, Kesihatan & Persekitaran, diantaranya :
- Penggunaan peralatan perlindungan diri
- Mengetahui label bahan kimia & simbol keselamatan
- Keadaan kerja yang tidak selamat
- Cara mengatasi pendedahan terhadap bahan-bahan merbahaya
- Bahaya bahan kimia & elektrik
- Peralatan kebakaran
- Anda harus tahu di mana terdapat pelan laluan kecemasan di tempat kerja anda serta laluan kecemasan yang perlu diikuti sekiranya berlaku kebakaran, letupan, pembocoran dan lain-lain.



Maklumat di atas boleh didapati daripada Standard Operating Procedure yang terdapat di tempat kerja anda dan juga daripada Manual Program

**ISO14001 ialah suatu Sistem Pengurusan Alam Sekitar.** Dengan mengamalkan sistem ini kita dapat memastikan alam sekitar dan sumber-sumber semula jadi dilindungi dengan sempurna. Sistem ini juga dapat membantu sesebuah organisasi dalam menguruskan pencemaran dan pembaziran.

Alam Sekitar meliputi udara, daratan, air, tumbuhan-tumbuhan (flora) termasuk hutan simpanan dan haiwan (fauna) termasuk haiwan liar.

#### Cara-Cara Pengurusan Alam Sekitar yang baik :-

- mengurangkan sisa buangan
- mengawal pencemaran
- keperihatinan dan peningkatan tahap yang berterusan
- mengamalkan Pengurusan Alam Sekitar pada setiap masa dan untuk setiap kegiatan

#### Di antara Isu-Isu Alam Sekitar yang sering di perbincangkan :-

- pemanasan bumi
- penipisan lapisan ozon
- hujan asid
- pembinaan hutan
- pencemaran udara, bumi, air dan bunyi

Melalui Sistem Pengurusan Alam Sekitar (ISO14001) kita dapat meneliti dan mengkaji operasi syarikat LRCHP secara sistematis untuk mengenalpasti semua Aspek pencemaran, keselamatan, dan lain-lain.



Projek berkenaan Alam Sekitar yang sedang dilaksanakan di LROH Pakujima Kuala Kelantan.

1. Mengurangkan penggunaan 'fuel oil' sebanyak 5%
2. Pengurusan Formier mengurangkan jumlah & kos kerosakan sebanyak 50%
3. Mengurangkan penggunaan sumber elektrik sebanyak 5%
4. Mengurangkan penggunaan sumber air sebanyak 7.5%
5. Mengurangkan pembaziran bahan yang digunakan untuk pembungkusan sebanyak 2% (packaging material)

**Sistem Pengurusan Alam Sekitar (Langkah-langkah penting yang perlu dipatuhi untuk memastikan pembangunan berterusan)**

- Mengurangkan pembaziran sumber asli atau barang buatan. Penghasilan dan pembuangan sisa mengikut keperluan peraturan dan mengikut Sistem Pengurusan Pembuangan Sisa-Sisa.
- Mengurangkan/mengawal pencemaran. Setiap organisasi harus mempunyai Sistem Kawalan Pencemaran yang baik untuk memastikan kesemua pencemaran dikawal, diawasi dan dibuang mengikut tahap yang dibenarkan.

- Mengenalpasti kesan pada alam sekitar untuk setiap aktiviti.

- Penggunaan semula bahan-bahan. Dapat membantu syarikat dalam mengurangkan kos operasi.

- Mengitar semula bahan-bahan. 'Memastikan syarikat menggunakan sumbernya secara optima.

- Pembelajaran yang berterusan. Setiap pekerja harus membina konsep pembaharuan yang berterusan.

**Reduce**

**Reuse**



## Polisi Alam Sekitar

### Polisi Syarikat :

- Mengekalkan sistem pengurusan seperti yang didefinisikan oleh piawaian antarabangsa ISO14001
- Untuk mematuhi segala peraturan dan undang-undang alam sekitar yang melibatkan aktiviti dan barangan keluaran.
- Mengukur dan menyimpan rekod terhadap kesan alam sekitar berkaitan dengan perubahan persekitaran, penipisan lapisan ozon, pembaziran, kualiti udara, kualiti air, perlindungan habitat dan kesan toksik terhadap ekosistem.
- Berusaha seberapa boleh untuk mengurangkan dan mengekalkan penggunaan sumber alam semula jadi dan juga mengekalkan kesamarataan polisi sosial dan alam sekitar sejagat.
- Menetapkan sasaran bagi mengurangkan impak terhadap alam sekitar yang akan memaparkan komitmen syarikat terhadap pembaharuan yang berterusan terhadap alam sekitar dan kesejahteraan masyarakat di mana sasaran ini akan dikaji secara rapi dari masa ke semasa.
- Memaparkan objektif serta sasaran di dalam risalah dalaman dan luaran
- Menggalakkan pengaliran maklumat mengenai persekitaran dengan pelanggan dan pembekal serta bekerjasama dalam usaha untuk mengurangkan sebarang impak terhadap alam sekitar.
- Memberi latihan dan meningkatkan kesedaran pekerja terhadap keperluan penjagaan alam sekitar dalam semua aktiviti.
- Menentukan carakkerja yang terbaik sebagai petunjuk dalam menetapkan tahap prestasi persekitaran di mana hanya setanding dengan syarikat lain di dalam industri perubatan.
- Berkerjasama dengan pihak-pihak terlibat di dalam perniagaan dan pemasaran untuk menggalakkan penggunaan barangan penjagaan kesihatan dengan selamat

## **APPENDIX 13**

(Group Environmental Report)





# Introduction

SSL International plc produced the first comprehensive report of its environmental performance last year, building on briefer statements of policy and objectives that had been published in previous years. The report was circulated with the Company's Annual Report.

This year, the process of sharing understanding of this important area of our performance with shareholders, employees and other important stakeholders is continued in this report. The report attempts to chart the Company's progress on environmental issues, to note some of the most important achievements and in doing this, to underline the commitment within the Company to environmental improvement.

The structure of the report, following last year's practice, looks in turn at those issues which form the current global environmental agenda, and relates products and manufacturing processes to those issues. Throughout a cradle-to-grave approach is taken with suppliers and customers being engaged in the process of improvement. In pursuing business, it is inevitable that environmental damage is caused; the Company's intention is to manage its activities to minimise such damage and strive to do business in the most sustainable way.

The Company is an active supporter of the Business in the Environment, Index of Corporate Environmental Engagement, which it sees as a key benchmark of its performance.

Last year, disappointment was noted that the Company only occupied position 157 of the top FT 350 Companies. This was attributed in part to some loss of momentum in improvement programmes caused by intense activities to integrate systems within the three companies that had recently formed SSL International plc.

The rating of 101 on this basis this year is tribute to the progress being made within the Company to keep environment high on the list of key management priorities in spite of other short-term pressures. It is noted with some satisfaction – but there is still a long way to go.

## Environmental Policy

**SSL International plc is dedicated to producing high quality healthcare and personal protective products in the areas of condoms, medical gloves, wound care, dressing retention, compression therapy, infection control, orthopaedics, continence care, over-the-counter (OTC) products and household and industrial gloves which can safely fulfill customer needs and expectations.**

The Company sees avoidance of pollution and other forms of environmental care in its operations as part of a commitment to health in the community.

It is the Company's policy:

To maintain a management system, as defined by the globally recognised standard ISO 14001 by which its environmental policy is defined and delivered; to extend this management system to all sites in due course.

To comply with all environmental legislation and regulations which cover its activities and products.

To measure and keep records of its environmental impacts relating to climate change, ozone depletion, creation of wastes, air quality, water quality, habitat protection and possible toxification of ecosystems.

To promote wherever possible the sustainable use of natural resources and maintain fairness in its global environmental and social policies.

To set targets to reduce these impacts on the environment, which reflect its commitment to continual improvements in its environmental performance and to the health and well being of the community, and review these rigorously.

To publish objectives and targets in both internal and external newsletters or brochures.

To promote an open exchange of environmental information with customers and suppliers and work with them where appropriate to reduce any significant environmental impacts within its supply chains.

To give training and raise awareness of its employees about the need for environmental care in all activities.

To note best practice in its industry as a guide to setting levels of environmental performance which at least equal the best in the healthcare industry.

To work with its trade associations to promote safe handling of healthcare products by users.

SL International plc  
is a global medical and  
consumer healthcare  
company supplying  
medical devices, over-  
the-counter medicines,  
surgical supplies and  
family planning products  
to consumers and to  
supporting healthcare  
professionals.

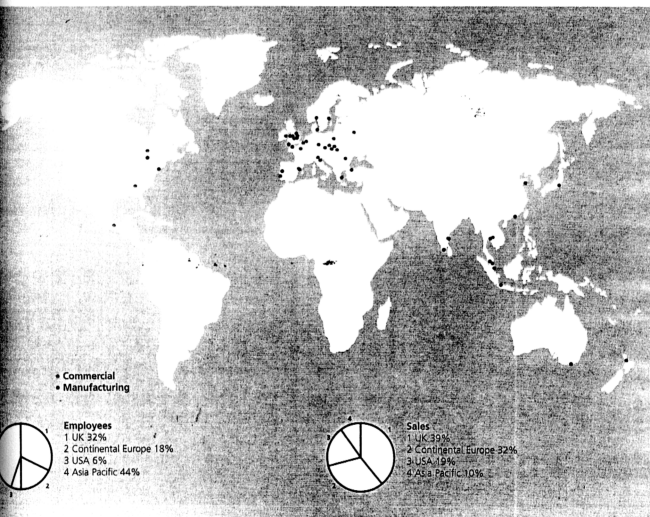
Its sector strengths include family planning  
products, footcare, medical and surgical  
gloves, woundcare, infection control, OTC  
medicines and continence care.

The Company is best known for its strong  
and well-respected brands. Prominent  
amongst these are 'Durex' and 'Scholl',  
which have a broad international reach,  
supported by many other strong brands  
such as 'Tubigrip', 'Regent', 'Meltus',  
'Resolve' and 'ProSport'.

Taking into account recent changes,  
manufacturing takes place on seven fully  
owned sites in the UK, on sites in Malaysia  
and Thailand, in a major joint venture with  
several sites in India, on two sites in  
continental Europe and on one in the USA.  
There is also a joint venture in China.

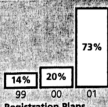
The Company continues to undergo  
substantial capital investment and site  
rationalisation, much of which is associated  
with capturing synergies from the process  
of mergers through which it was created.  
This process of change makes it difficult to  
establish reliable baselines for reporting  
environmental improvements.

For further information or enquiries please  
call Ingrid Osterburg, Quality and  
Environment Controller.



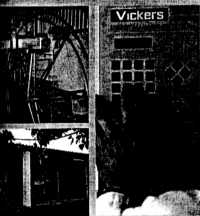
# Development of Environmental Management Systems

gets  
need for the next  
months are:  
y 2001  
y 2001  
stration in Kulim at  
HP and LRCM.  
y 2001  
pletion of  
liminary review  
Thailand.  
y 2001  
pletion of  
liminary review in  
a at Pallavaram and  
dhunagar.  
y 2001  
stration at Heywood.  
y 2001  
stration in Portugal.



**Registration Plans and Achievements**

Below Portugal's new effluent plant is pictured left and a control panel for Derby's energy management system is shown right.



SSL International plc is continuing to use ISO 14001 to manage its operational activities. This management system standard provides a means of monitoring and controlling of environmental performance with the focus on continual improvement and minimisation of environmental impacts.

Historically the Company obtained its first environmental registration in January 1996 to BS7750. This was later converted to ISO 14001 in 1997 and from this point forward the development of the Company's management system has continued to be an evolving process. It is the Company's objective to extend the ISO 14001 system to include all manufacturing and distribution sites.

The manufacturing site in Spain achieved registration to ISO 14001 in October last year and a further three sites have submitted applications for registration this year. In addition implementation is ongoing at manufacturing sites in Portugal, Thailand and India and at the last remaining UK distribution site not already registered.

## Case Study – Portugal

Real reductions in the generation and disposal of waste, coupled with initiatives to reduce the quantity of environmental discharges to air and water, have been targets of major projects at the manufacturing site for several years. The site is now working towards ISO 14001 implementation, and as part of this process, all processes, and potential emergency situations, have been identified and evaluated in accordance with the Company's methodology used for environmental impact analysis and evaluation. Significant environmental impacts and local regulatory requirements have been identified, and a team for ISO 14001 planning and implementation is now writing procedures for controlling significant environmental impacts, and defining awareness and training for all factory staff.

## Case Study – Derby

The Derby manufacturing site has completed its ISO 14001 implementation process and is now waiting for its first assessment visit. Initially site personnel knew little about environmental management systems but interest grew during preparation of the preliminary environmental review, finding out that over 100 years ago the site was, once a brick yard and more recently was the training ground for Derby County football club. As time moved on the people on site began to appreciate more the benefits the ISO 14001 can bring, by introducing policies and procedures that control the way site activities impact on the local and global environment, the standard also required the Company to continually improve. Therefore, not only the Company but also the global community and future generations will benefit from ISO 14001.

## Case Study – Spain

It was in April 1999 that the manufacturing site started to think about environmental management system implementation according to ISO 14001, a living and dynamic system, based on the continuous and reasonable improvement of environmental aspects. A system also compatible with the current ISO 9001 quality system. The implementation phases were the following:

1. Initial environmental evaluation to identify the environmental impacts generated by site activities, and the applicable legal requirements.
2. Definition of the Environmental Policy, Objectives and Environmental Management Programme.
3. Documentation issue (manual, procedure, working instructions and records).
4. Environmental training of all staff to carry out implementation with success, and also training of internal environmental auditors.
5. Environmental management system implementation in different sections/areas of the site: procedures distribution and application.
6. Internal audits to check if the system was working OK.
7. Certification audit by SGS in October 2000 with successful result.

During this year the site have confirmed the advantages of implementation of its environmental management system through its use as a tool for improvement, competitiveness and people participation.

# Product Management

## Targets

Agreed for the next 12 months are:

- Durex Family Planning Products – Condoms.
- Scholl Medicated Mass Products – Footcare.

## Product Groups Assessed

Product family and date completed:

**1995**  
Tubigrip – tubular bandage.

**1996**  
Lyofom – absorbent foam dressings.

**1997**  
OTC Products – head lice and scabies treatments.  
Simple Products – continence care.

## 1998

Breyer TX – anti-embolism hosiery.

## 1999

Softgrip – compression therapy.  
Betadine – infection control.

Nelaton Catheters – continence care.

## 2000

Remegel products – antacid gastrointestinal treatments.

Regent Biogel – surgical gloves.

**Below** Rubber-tapping in Malaysia, where the plantation complies with ISO 14001 requirements.

In addition to evaluating and managing the impact of its operational activities, SSL International plc also undertakes environmental impact assessments of key product ranges. The assessment of product life cycles takes into consideration the effect upon the environment from the point where the raw materials are obtained, right through the manufacture to its final use and disposal.

The Company's objective is to continue the process of identifying and understanding the environmental impacts of products and processes through a progressive detailed study of product life cycles.

In the last 12 months a comprehensive evaluation of Regent Biogel has been completed and information collected for a full review of Durex Family Planning Products (condoms).

## Case Study –

### Regent Biogel Surgical Gloves

This range of specialist gloves is manufactured in Malaysia from natural rubber latex produced by a local plantation company. Studies have been carried out using methods based on the ISO14001 standard to identify the significant environmental impacts associated with the production of latex, use and disposal of Regent Biogel surgical gloves. These are summarised as follows:

1. Rubber latex is produced under the bark of the rubber tree, *Hevea Brasiliensis* by natural processes fuelled by sunlight in which carbon dioxide from the air is combined with water and nutrients from the soil. Latex is taken from the trees by a labour intensive 'tapping' process carried out by employees of our Malaysian latex supplier, using systems that complement the ISO 14001 environmental management system. Use of natural raw materials has the benefit of reducing the amounts used of non-renewable resources based on oil.
2. Transport of surgical gloves to markets worldwide by marine shipping and road vehicles give rise to greenhouse gas and other emissions.

3. Regent Biogel surgical gloves used in medical and laboratory applications provide important benefits in limiting the spread of infection and disease.

4. Disposal of Regent Biogel surgical gloves by incineration is expected to produce amounts of acid gas (sulphur dioxide), solid residue (zinc oxide), as a result of additives used in the process stages. These materials will be absorbed by flue gas abatement equipment in a clinical waste incinerator and will not be released into the atmosphere. If these gloves are disposed of to landfill, evidence shows slow degradation by naturally occurring bacteria will occur, unlike synthetic products that are resistant to biological processes.

5. Each pair of gloves is carefully packed to protect the gloves, balancing the need to ensure that they remain free from harmful bacteria after irradiation, to the point of use, but without excessive use. Disposal of the packaging items will result in the use of landfill capacity or in emissions of greenhouse gas from incineration.

The impact of manufacturing was considered separately as part of manufacturing the site's implementation of ISO 14001.



## Partnership Projects

sets  
with customers  
suppliers to reduce  
environmental impacts

Below Where possible  
raw material packaging  
such as the cones  
carrying yarn, is recycled  
or re-used.



The philosophy of ISO 14001 not only encourages the management of direct environmental impacts from primary operational activities but also the indirect impacts that are within the Company's broader sphere of influence. These may be related to the activities and impacts of a wide range of interested parties such as suppliers, contractors, customers, regulatory bodies, trade associations and the local community.

In line with corporate policy the Company takes an active role in liaising with these key stakeholders and engaging in proactive dialogue.

It is the Company's policy to promote the open exchange of environmental information with customers and suppliers and work with them, where appropriate to reduce any significant environmental impacts within the supply chain.

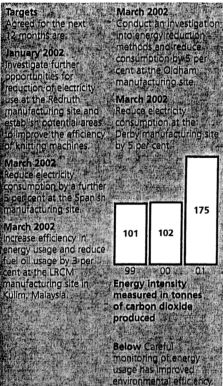
In the last 12 months the Company has worked with two of its key customers. Information was exchanged to enable a more complete understanding to be reached of each other's environmental priorities and to identify potential areas for collaboration. Involvement in a major project initiated by one of the customers is now maintained through relevant trade associations. Time was also spent with its Malaysian supplier of latex concentrate visiting sites to understand the supplier's processes and its ISO 14001 implementation programme. Information and advice was exchanged and contact is being maintained. There have also been partnership initiatives occurring at a site level with local organisations such as Groundwork Trusts, local councils and charities.

### Case Study – Redruth

The primary raw material used in the manufacturing process at Redruth is yarn wound onto plastic or cardboard cones. When the yarn has been used the cones are left as waste for disposal to landfill. During 2000 it was recognised in one of the site objectives that by reusing the yarn cones waste disposal volumes on the site could be reduced.

After negotiations with the supplier of the plastic yarn cones, a collection system was setup, allowing the supplier to reuse the cones for further sales of yarn. Unfortunately this system was not possible for the cardboard yarn cones, but after approaching a number of alternative organisations a partnership was formed with a local charitable organisation that were able to make use of the cones in their activities. A segregation system was set up and now the charity make regular collections.

# Climate Change



Climate change and global warming is recognised internationally as a pressing environmental issue. The generation of energy from fossil fuels and the transportation of goods and people give rise to carbon dioxide and other greenhouse gases in the atmosphere. Commitments have been made by many countries throughout the world to reduce the output of greenhouse gases through international agreements such as the UN Convention on Climate Change at Kyoto in 1999.

It is the Company's objective to reduce the consumption of fossil fuels based upon a thorough understanding of the full carbon dioxide emissions generated by company activities (including contractors employed in operations such as transport). It is also committed to identifying wastage and to defining effective local projects to improve efficiency in its use of natural resources such as energy.

Over the last 12 months systems have been set up to monitor the use of video-conferencing facilities and information is being sourced to assist in the measurement of transport emissions from business travel and freight. At a site level, Oldham manufacturing has reduced its use of energy through the installation of more efficient compressors and regular monitoring for compressed air leaks. The manufacturing site in Spain has achieved a 6.48 per cent reduction in the use of electricity through a variety of initiatives.

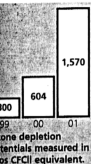
## Case Study –

### Compressed air, Oldham manufact

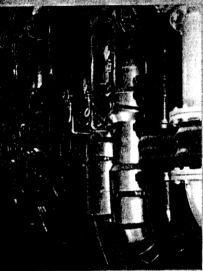
One of the environmental objectives of Oldham site was to reduce the amount of energy used in the manufacture of compressed air. A modern manufacturing plant uses a significant amount of compressed air and subsequently a large amount of electrical energy is required. A reduction in energy usage was achieved by the installation of more efficient compressors using the latest control systems. Although there was a large capital investment, the new compressors will have a short payback period, due to the 108,000 kW/year saving in energy costs. Compressed air leakage also increases energy usage and this has been reduced at the site through a system of regular monitoring to highlight any leakage. The number of leaks has been significantly reduced.



## Ozone Depleters



Below Chiller units ideally use non-CFC substances.



The ozone layer, which protects life on earth from the harmful effects of ultraviolet light, has been found in recent years to be damaged due to the introduction of ozone depleting substances primarily through industrial applications. Substances posing a risk to the ozone layer are now subject to international agreements such as the Montreal Protocol, limiting production and consumption levels and in many cases resulting in phase out programmes for some key ozone depleting substances.

It is the Company's objective to remove all ozone depleting substances from the supply chain.

In the last 12 months the Company has successfully replaced the HCFCs used as blowing agents by its supplier for the manufacturing of polyurethane foam, used in Lyfoam dressings. In Malaysia, LRCHP at Kulim has ensured that the new packaging facility only utilises CFC free chiller systems.

### Case Study – Malaysian Surgical Glove Manufacturing, Packaging Facilities

In the existing surgical glove manufacturing facilities in Kulim, surgical gloves are currently packed in a Controlled Environment Room, supported with a cooling system with chiller units that use CFC refrigerant substances that are hazardous to the environment. The two chiller units each have a capacity of 450 tons refrigerant per unit, with one always in operation with the other as contingency standby. These have been in use since LRCHP commenced operations in Malaysia in 1990. In line with LRCHP's goal to continuously improve the environment management system and also with the Company's corporate objective to gradually phase out ozone depleting substances, this issue has been looked into seriously. As a result it was decided that the new surgical gloves packaging facilities should be a "CFC free" facility. The surgical gloves packaging activities in this plant will be carried out in a Controlled Environment Room supported with cooling system by four chiller units using non-CFC substance with a capacity of 500 tons refrigerant per unit.

LRCHP operations are committed to gradually phasing out ozone depleting substances in all the remaining operations which use CFCs/HCFCs and ensuring all future installations of cooling systems are CFC free.

# Waste

## Targets

Agreed for the next 12 months are:

### December 2001

Improve the management of special waste at the Derby manufacturing site.

### March 2002

Lower scrap levels by 7 per cent and reduce cardboard waste by 3 per cent at Derby.

### March 2002

Reduce the amount of cardboard waste at the Oldham site by the utilisation of re-usable containers.

### March 2002

Reduce special waste at the Spanish manufacturing site by a further 5 per cent.

### March 2002

Reduce vulcanized rubber waste, general waste and scheduled waste (metal & chromium) by 3 per cent at LRCM in Kulim, Malaysia.

### March 2002

Reduce waste latex, both solid and liquid by 3 per cent and utensil cleaning waste by 25 per cent at LRCHP in Kulim, Malaysia.

All wastes have the potential to cause environmental damage if not correctly managed. The generation of waste has implications on natural resource use and its final disposal has impacts on land use. Waste minimisation is a key aspect of environmental management, it actively encourages the efficient use of materials therefore ensuring that the least amount of waste is generated. By encouraging the recycling and reuse of materials arising as waste, the move away from landfill and incineration can be facilitated, protecting vital land resource and minimising the potential for pollution.

The Company's objective is to identify sources of wastage and define effective local projects to improve efficiency.

In the last 12 months there have been many site-based initiatives. At the Oldham manufacturing site a new waste contractor was found who sorted and recycled a high percentage of the waste the site produced. In addition the site also set up collection schemes for recycling separate waste streams that could be readily segregated on site. At the Redruth manufacturing site textile waste is now being re-used as fabric swatches, all cardboard is segregated and recycled and yarn cones are either returned to the supplier for re-use or collected by a local charity. There is also a project ongoing to reduce yarn wastage levels. At the Spanish manufacturing site carton waste was decreased by 16 per cent, latex excess by 31 per cent, lubricant waste by 60 per cent, general waste by 38 per cent and special waste by 41 per cent. Derby set up a comprehensive waste-monitoring programme.

## Case Study –

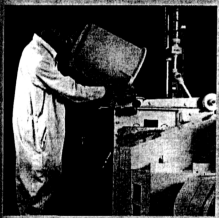
### Spain, Waste Minimisation

In order to improve the site's environment seven environmental objectives were established, five of which related to waste minimisation. The main action carried out to achieve those objectives was the following: training given to all staff to carry out correct waste segregation; improved waste management with an official special waste contractor; the identification of wastes that could be recycled for recycling and reuse and the setting up of a system to monitor and measure waste.

## Case Study – Derby,

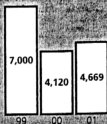
### Waste Monitoring Programme

At Derby a waste-monitoring programme was implemented for the five largest volume products in each production area and their major components. When the data is analysed it will give the site an opportunity to evaluate the different waste streams and pinpoint areas where there is the greatest potential for improvement. The figures will be used to identify preventative action to facilitate waste minimisation.



## Air Quality

projects  
erred for the next  
months are  
March 2002  
minimise the use of  
vents at LRCM  
film in Malaysia by  
per cent.  
October 2002  
minimise all solvent-  
based adhesives used in  
related products  
manufactured at Derby



**Volatile Organic Chemicals (VOCs) measured in kilos**  
photochemical ozone creation potential  
UK figures only

The control of Volatile Organic Compound (VOC) emissions is both important at a local and at a trans-national level. VOCs are substances that contain carbon and evaporate readily in atmospheric conditions. They have the potential to react with other substances in the atmosphere forming low-level ozone, which damages vegetation and contributes to respiratory difficulties. VOCs are present in a variety of substances but most notably solvents.

It is the Company's objective to remove all solvent-based substances from the supply chain where these contribute to the formation of ground level ozone, except where unacceptable loss of healthcare functionality would result.

In the last 12 months the Company's main EtO contract steriliser has commissioned new equipment to oxidise residual EtO so that emissions only contain carbon and water. At the Derby manufacturing site the solvent based adhesives used for the medicated mass manufactured have been replaced in product supplied to Japan. Trials are ongoing on product supplied into the UK.

### Case Study – Sterilisation

Many products in the Continence Care range are sterilised to enhance patient safety using an ethylene oxide technique carried out by specialist contractors. In the past residual ethylene oxide (EtO) was released to atmosphere where photochemical reactions could, depending on the weather conditions, lead to the formation of irritant gases including ozone. Our main contractor has worked over several years to reduce these emissions by improving process efficiencies and has recently commissioned new equipment. The residual EtO is oxidised in a catalytic process so that emissions contain only carbon and water. Against a background of increasing production volume for incontinence care products, the amounts of EtO released into the atmosphere have fallen from 8 tonnes in 1997–8 and 9 tonnes in 1998–9, to 2 tonnes in 1999–2000, 0.6 tonnes in the first half of the current year, and to effectively zero in the second half. Our contractors expect that there will be no significant emissions of EtO in the future.



## Water Quality and Conservation

### Targets

Agreed for the next 12 months are:

### January 2002

Complete an investigation of effluent generation from the insole screen wash at the Derby manufacturing site and reduce wastewater by 20 per cent.

### March 2002

Reduce water consumption at the LRCM manufacturing site in Kulim, Malaysia by 5 per cent.

### March 2002

Recycle AG Dipping line flood wash water at the LRCM manufacturing site in Kulim, Malaysia to 240 m<sup>3</sup> per day.

### March 2002

Recycle 20 per cent of water from the stripping process at the manufacturing site in Spain and reduce water consumption by a further 5 per cent.

Below investment in state of the art effluent treatment plant ensures highest quality discharge.

The pressures facing both industrial and domestic users discharging pollutants to water have increased significantly as environmental legislation has been introduced. Demands for high standards of water quality and the allocation of scarce water resources have influenced the way water use and effluent generation is managed. It has been recognised that a number of substances discharged to water have the potential to have adverse affects on the water quality of rivers and lakes etc.

It is the Company's objective to minimise any potentially damaging releases to the aqueous environment. It is also committed to identifying wastage and to defining effective local projects to improve efficiency in its use of natural resources such as water.

### Case Study – Effluent Treatment Plant

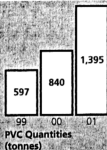
On 31 August last year, to coincide with Malaysian Independence Day, the LRCM manufacturing site at Kulim, completed an upgrading project on its wastewater treatment plant. The new treatment plant has a capacity of 180 m<sup>3</sup> per hour that enables it to meet the discharge requirements of both LRCM and LRCM. The wastewater treatment plant was built in the constrained area available and incorporated a new generation of dissolved air flotation unit (DAF). Utilising state of the art clarifier technology and four sequential batch reactors the wastewater is treated and discharged within the local environmental specifications. Daily operation is optimised by an innovative supervisory control and data acquisition (SCADA) system making it the most modern wastewater treatment plant on the Kulim Industrial Estate.



## Toxification of Ecosystems

Targets agreed for the next 12 months are:

March 2002  
introduce a programme to monitor PVC usage in blister packs at the Derby manufacturing site and reduce by 50 per cent.



Toxification of ecosystems occurs when products are released which might persist in the environment causing long-term damage to essential life cycles on which the ecosystem depends. This is a large area of study involving many chemicals and much scientific complexity. The main areas of specific concern to SSL International plc are the use of PVC within the continence care business and in blister packs; the use of pesticides in the form of head lice treatments and the use of artificial fertilisers and pesticides to support the production of cotton yarns used in the manufacture of support bandages.

It is the Company's objective to monitor closely the developing scientific understanding of the environmental impact of PVC (including plasticisers within it) and relevant pesticides and make changes to product compositions if new understandings show that the balance of risk and benefit demand it.

In the last 12 months specifications for non-PVC drainage bags have been defined.

### Case Study – PVC Free Drainage Bags

As with other companies' urine drainage bags, SSL International bags are manufactured predominantly from PVC. A new product development project was initiated to identify alternative materials from which drainage bags could be manufactured should the market move to specifying the use of PVC free drainage bags on environmental grounds. The aim of this project has now been fulfilled as suitable materials have been identified along with a proposed new design and method of manufacturing the bags.



## **APPENDIX 14**

(Survey Questionnaire)

Please answer all the questions that relevant to your operations. Thank you for participating in this survey. Your co-operation is deeply appreciated. Please be assured that all information given will be treated in the strictest confidence. Date ..... Time.....

### General description

Position in organization: \_\_\_\_\_ Department: \_\_\_\_\_

Sex:

☒ Male

☒ Female

How long have you worked for this company?

☒ Less than 1 year

☒ 11- 20 years

☒ 1- 5 years

☒ > 20 years

☒ 6- 10 years

### How strongly do you agree or disagree with the following statements?

For each question please circles the number that reflects your perception and opinion)

- 1 Strongly disagree
- 2 Disagree
- 3 Slightly disagree
- 4 Neutral
- 5 Slightly agree
- 6 Agree
- 7 Strongly agree

#### Organization characteristics

Congruence (Question 1&2) This the degree to which an intervention is perceived as being in harmony with the organization's managerial philosophy, strategy, and structure; its current environment; and other changes taking place

The improvement initiative is in harmony with the organization's managerial philosophy,

1 2 3 4 5 6

The improvement initiative is in harmony with the other changes taking place in the organization.

1 2 3 4 5 6

Stability of environment and technology-(Questions 3&4) This is the degree to which the organization's environment and technology are changing Unless the change target is buffered from these changes or unless the changes are dealt directly by the change program, it may be difficult to achieve long-term intervention stability.

The improvement initiatives in conducted in a stable environment

1 2 3 4 5 6

The changes (increase in demand for the hospital services) are dealt with directly by the change Program.

1 2 3 4 5 6

#### Unionization (Question 5& 6)

Diffusion of interventions may be easier if unions do not play a major influence on the staff.

The diffusion of improvement initiatives is easier because changes do not affect union contract such as salary and fringe benefits.

1 2 3 4 5 6

The diffusion of improvement initiatives is easier because changes do not affect union contract such as job design and employee flexibility).

1 2 3 4 5 6

#### Intervention Characteristics

Leaders establish unity of purpose and direction of the organisation. They should create and maintain the internal environment in which people can become fully involved in achieving the organisation's objectives.

1 2 3 4 5 6

Goal specificity : (question 7&8) This involves the extent to which intervention goals are specific

rather than broad. Specificity of goals direct socializing activities [e.g. training and orienting new members] It also helps operationalize the new behaviors or NWWs so that rewards can be linked to them.

The improvement initiative goals direct socializing activities such as training

- |    |  |   |   |   |   |   |   |
|----|--|---|---|---|---|---|---|
| 8. | The improvement initiative goals directly link new behaviors with rewards. | 1 | 2 | 3 | 4 | 5 | 6 |
|----|--|---|---|---|---|---|---|

Programmability: (Questions 9&10)

This involves the degree to which the changes can be programmed or the extent to which the different intervention characteristics can be specified clearly in advance to enable socialization, commitment and reward allocation.

- |  |  |   |   |   |   |   |   |
|--|--|---|---|---|---|---|---|
|  | One of the target of the improvement initiative is looking into strategic intent for example reevaluating vision and external relationships [e.g. suppliers] | 1 | 2 | 3 | 4 | 5 | 6 |
|--|--|---|---|---|---|---|---|

- |     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| 10. | Target of the improvement initiative strategy is employee involvement and improving interpersonal and group processes. Eg. Team building, conflict management | 1 | 2 | 3 | 4 | 5 | 6 |
|-----|---|---|---|---|---|---|---|

Level of change target: (Questions 11&12)

This concerns the extent to which the change target is the total organization, rather than a department or small work group. Each level of the organization has facilitators and inhibitors of persistence. Departmental and group change are susceptible to countervailing forces from others in the organization. This can reduce the diffusion of the intervention and lower its ability to impact organization effectiveness.

The target of change is the total organization /department /section /group.

- |     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| 12. | There is a promotion of consensus across the organization | 1 | 2 | 3 | 4 | 5 | 6 |
|-----|---|---|---|---|---|---|---|

Internal support (13&14)

This refers to the degree to which there is an internal support to guide the change process. Leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

There is an effective internal support system to guide the change process

- |     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| 14. | The external consultant brings expertise on organizational design and trains members to implement the design. | 1 | 2 | 3 | 4 | 5 | 6 |
|-----|---|---|---|---|---|---|---|

Sponsorship Questions (15&16)

This concerns the presence of a powerful sponsor who can initiate allocate and legitimize resources for the intervention

- |  |  |   |   |   |   |   |   |
|--|--|---|---|---|---|---|---|
|  | There is a powerful sponsor who initiates allocates, legitimizes and controls the appropriate resources for improvement initiative | 1 | 2 | 3 | 4 | 5 | 6 |
|--|--|---|---|---|---|---|---|

- |     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
| 16. | The middle managers support the improvement initiatives | 1 | 2 | 3 | 4 | 5 | 6 |
|-----|---|---|---|---|---|---|---|

**Institutionalization processes**

Socialization (questions 17&18)

This concerns the transmission of information about beliefs, preferences, norms and values with respect to the intervention.

There is considerable learning and experimentation on the job

- |     |  |   |   |   |   |   |   |
|-----|--|---|---|---|---|---|---|
| 18. | There is a continual process of socialization and promotion of persistence about the change program Eg. learning and experimentation on the job. | 1 | 2 | 3 | 4 | 5 | 6 |
|-----|--|---|---|---|---|---|---|



<u>Commitment</u> (Questions 19&20)									
19.	This binds people behaviors associated with the intervention. It includes initial commitment to the program, as well as recommitment over time. People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit.	1	2	3	4	5	6		
	There is commitment towards the improvement initiative from employees / middle managers / upper managers involved.								
20.	Change is a constant agenda in the management of the business	1	2	3	4	5	6		
<u>Reward allocation</u> (Questions 21&22)									
21.	This involves linking rewards to the new behaviors required. Organizational rewards can enhance the persistence of the interventions.	1	2	3	4	5	6		
	The improvement initiative provides opportunities for challenging development and accomplishment.								
22.	The reward systems is constantly revised to maintain a high level of desired behaviors	1	2	3	4	5	6		
<u>Diffusion</u> (Questions 23&24)									
23.	This refers to the process of transferring interventions from one system to another. Diffusion facilitates institutionalization by providing a wider organizational base to support the new behaviors	1	2	3	4	5	6		
	There is a wide organizational acceptance towards the new ways of working (NWsW)								
24.	The NWsW complement the organizational values and norms.	1	2	3	4	5	6		
<u>Sensing &amp; calibration</u> (Questions 25&26)									
25.	This involves detecting deviations from the desired intervention behaviors and taking corrective action. To detect this variation and take corrective actions, organizations must have some sensing mechanism. Sensing mechanisms such as implementation feedback, management reviews and internal audits provide information about the occurrence of deviations. Continual improvement should be a permanent objective of the organisation. Effective decisions are based on the analysis of data and information.	1	2	3	4	5	6		
	There are continuous assessments conducted in the form of Internal audit.								
26.	Variation in performances /preferences/ norms and values are corrected.	1	2	3	4	5	6		
<b>Indicators of institutionalization</b>									
27.	Institutionalization reflects degrees of persistence of a intervention. The variables or dimensions indicates the extent of an intervention's persistence. These five indicators can be used to assess the level institutionalization of the OD intervention. The more the indicators are present the higher will be the degree of institutionalization								
<u>Knowledge</u> (Questions 27&28)									
	It is concerned with whether members know enough to perform the behaviors and to recognized the consequences of that performance.	1	2	3	4	5	6		
	Organization members have knowledge of the NWsW and behaviors associated with the improvement initiative								
28.	Organization members have knowledge to perform the NWsW.	1	2	3	4	5	6		
<u>Performance</u> (Questions 29)									
29.	This is concerned with the degree to which intervention behaviors are actually performed	1	2	3	4	5	6		
	I feel a vast majority of the members are performing the NWsW.								
<u>Preferences</u> (Questions 30&31)									
30.	This involves the degree to which organization members privately accept the organizational changes. Identifying, understanding and managing a system of interrelated processes for a given objective improves the organisation's effectiveness and efficiency.	1	2	3	4	5	6		
	An organisation and its suppliers are interdependent, and a mutually beneficial relationship enhances the ability of both to create value.								

The NWsW have assisted me understand the business better

31. The NWsW has facilitated my work. 1 2 3 4 5 6

Normative consensus (Questions 32)

32. This focuses on the extent to which people agree about the appropriateness of the organizational changes

The organizational changes are in line with the business requirements o

Value consensus (Questions 33-37)

33. This concerned with social consensus on values relevant to the organizational change. Values are beliefs about how people ought or ought not behave. Organizations depend on their customers and therefore should understand current and future customer needs, meet customer requirements and strive to exceed customer expectations.

1 2 3 4 5 6

The changes has promoted and the concept of internal customer service.[your next process is your customer]

34. The changes has promoted and the concept of external customer service. 1 2 3 4 5 6

35. There is an effective customer complaint handling system 1 2 3 4 5 6

36. The change has promoted the concept of team work and cohesiveness

37. The change has promoted the concept of continuous learning 1 2 3 4 5 6

**Divisional performance.** Consistent with the argument of Gupta & Govindarajan (1984) and Govindarajan (1988), this research measured the performance of sections or divisions in the form of a comparison between actual performance and a priori expectation from the HQ, rather than using an absolute financial scale. This is because in a business group, especially the related diversified groups or the vertically integrated ones, individual division's contribution cannot be evaluated merely by its own financial statement due to performance ambiguity resulted from divisional resource sharing or skill transfers. Therefore, data were collected on the following dimension: gross profit, profit growth, labor productivity, return on sales, return on investment, development of new products, sales growth, market share, cash flow from operations, capacity utilization, cost control, personnel development, company image, and customer satisfaction. On each of these 14 items respondents were asked to rate their sectional or divisional relative to the HQ's expectation on a seven-point scale, ranging from "not satisfactory at all" (=1) to "Extremely outstanding" (=7). A straight average of these dimensions was used as the measure.

1 2 3 4 5 6

Market share

39. Profit growth 1 2 3 4 5 6

40. Labor productivity. 1 2 3 4 5 6

41. Return on sales 1 2 3 4 5 6

42. Return on investment. 1 2 3 4 5 6

43. Development of new products. 1 2 3 4 5 6

44. Sales growth. 1 2 3 4 5 6

45. Capacity Utilization 1 2 3 4 5 6

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46. Cost control.	1	2	3	4	5	6
47. Personnel development	1	2	3	4	5	6
48. Company image.	1	2	3	4	5	6
49. Customer satisfaction	1	2	3	4	5	6

## **APPENDIX 15**

(Questionnaire Comparisons)

Section	Cummings and Worley Institutionalisation Framework	Yusoff Omar's Questionnaires	Remarks
A		General description Q: Position, Department, Gender, Years of Service	<p>Respondents are asked to express their opinion on each of the statements by deciding on their level of agreement across seven points on the likert scale as follows.</p> <p>1: Strongly disagree 2: Disagree 3: Slightly disagree 4: Neutral 5: Slightly agree 6: Agree 7: Strongly agree</p>
B	<b>1. Organisational Characteristics</b> i. Congruence  ii. Stability of environment and technology   iii. Unionisation	Q1: The improvement initiative is in harmony with the organization's managerial philosophy. Q2: The improvement initiative is in harmony with the other changes taking place in the organization. Q3: The improvement initiatives in conducted in a stable environment Q4: The changes (increase in demand for the hospital services) are dealt with directly by the change Program. Q5: The diffusion of improvement initiatives is easier because changes do not affect union contract such as salary and fringe benefits. Q6: The diffusion of improvement initiatives is easier because changes do not affect union contract such as job design and employee flexibility.  Q7: The improvement initiative goals direct socialising such as training Q8: The improvement initiative goals directly link new with rewards. Q9: One of the target of the improvement initiative is looking into strategic intent for example reevaluating vision and external relationships [e.g. suppliers] Q10:	
	<b>2. Intervention Characteristics</b> i. Goal specificity   ii. Programmability		

Section	Cummings and Worley Institutionalisation Framework	Yusoff Omar's Questionnaires	Remarks
	<p>iii. Level of change target</p> <p>iv. Internal support</p> <p>v. Sponsorship</p>	<p>Target of the improvement initiative strategy is employee involvement and improving interpersonal and group processes. Eg. Team building, conflict management</p> <p>Q11: The target of change is the total organization /department/ section/ group</p> <p>Q12: There is a promotion of consensus across the organization</p> <p>Q13: There is an effective internal support system to guide the change process</p> <p>Q14: The external consultant brings expertise on organizational design and trains members to implement the design</p> <p>Q15: There is a powerful sponsor who initiates allocates, legitimizes and controls the appropriate resources for improvement initiative</p> <p>Q16: The middle managers support the improvement initiatives</p>	
	<p><b>3. Institutionalization processes</b></p> <p>i. Socialization</p> <p>ii. Commitment</p> <p>iii. Reward allocation</p>	<p>Q17: There is considerable learning and experimentation on the job</p> <p>Q18: There is a continual process of socialization and promotion of persistence about the change program Eg. learning and experimentation on the job</p> <p>Q19: There is commitment towards the improvement initiative from employees / middle managers / upper managers involved</p> <p>Q20: Change is a constant agenda in the management of the business</p> <p>Q21: The improvement initiative provides opportunities for</p>	

Section	Cummings and Worley Institutionalisation Framework	Yusoff Omar's Questionnaires	Remarks
	<p>iv. Diffusion</p> <p>v. Sensing &amp; calibration</p> <p><b>4. Indicators of institutionalization</b></p> <p>i. Knowledge</p> <p>ii. Performance</p> <p>iii. Preferences</p> <p>iv Normative consensus</p> <p>v. Value consensus</p>	<p>development and accomplishment</p> <p>Q22: The reward systems is constantly revised to maintain a high level of desired behaviors</p> <p>Q23: There is a wide organizational acceptance towards the new ways of working (NWsW)</p> <p>Q24: The NWsW complement the organizational values and norms</p> <p>Q25: There are continuous assessments conducted in the form of Internal audit</p> <p>Q26: Variation in performances /preferences/ norms and values are corrected</p> <p>Q27: Organization members have knowledge of the NWsW and behaviors associated with the improvement initiative</p> <p>Q28: Organization members have knowledge to perform the NWsW</p> <p>Q29: I feel a vast majority of the members are performing the NWsW</p> <p>Q30: The NWsW have assisted me understand the business better</p> <p>Q31: The NWsW has facilitated my work</p> <p>Q32: The organizational changes are in line with the business requirements</p> <p>Q33: The changes has promoted and the concept of internal customer service [your next process is your customer]</p> <p>Q34:</p>	

Section	Cummings and Worley Institutionalisation Framework	Yusoff Omar's Questionnaires	Remarks
C		<p>The changes has promoted and the concept of external customer service Q35:</p> <p>There is an effective customer complaint handling system Q36:</p> <p>The change has promoted the concept of team work and cohesiveness Q37:</p> <p>The change has promoted the concept of continuous learning</p> <p><b><u>Divisional performance</u></b>  Q38: Market share  Q39: Profit growth  Q40: Labor productivity  Q41: Return on sales  Q42: Return on investment  Q43: Development of new products  Q44: Sales growth  Q45: Capacity Utilization  Q46: Cost control  Q47: Personnel development  Q48: Company image  Q49: Customer satisfaction</p>	<p>Respondents are asked to rank across seven points likert scale from 1: Not satisfactory at all, to 7: Extremely outstanding</p>



## **APPENDIX 16**

Overall Descriptive Statistics for Institutionalisation Framework)

## Overall Descriptive Statistics for Institutionalisation Framework

					Disagree & Strongly disagree	Slightly disagree	Neutral	Slightly agree
No	N	Min	Max	Mean	Percentage			
<u>Congruence</u>								
1	120	1	6	2.64	53	27	19	-
2	120	1	5	2.71	50	26	21	3
<u>Stability of environment &amp; technology</u>								
3	120	4	6	5.16	-	-	6	73
4	120	1	5	2.93	29	46	23	3
<u>Goal specificity</u>								
7	120	1	5	2.59	49	42	7	3
8	120	1	4	2.25	71	24	5	-
<u>Programmability</u>								
9	120	1	6	3.34	30	20	31	17
10	120	1	4	2.28	70	23	7	-
<u>Level of change target</u>								
11	120	1	5	3.14	39	21	28	13
12	120	1	5	2.73	50	28	19	3
<u>Internal support</u>								
13	120	1	4	2.51	52	43	5	-
14	120	1	1	1.00	100	-	-	-
<u>Sponsorship</u>								
15	120	2	7	3.98	7	24	46	13

No		N	Min	Max	Mean	Percentage			
	<u>improvement initiative</u>								
16	The middle managers support the improvement initiatives	120	1	6	3.40	46	10	3	35
	<u>Socialisation</u>								
17	There is considerable learning and experimentation on the job	120	1	6	3.21	37	23	23	13
18	There is a continual process of socialization and promotion of persistence about the change program Eg. learning and experimentation on the job	120	1	5	2.79	42	35	19	4
	<u>Commitment</u>								
19	There is commitment towards the improvement initiative from employees / middle managers / upper managers involved	120	1	5	2.64	42	47	9	3
20	Change is a constant agenda in the management of the business	120	1	4	2.47	54	39	7	-
	<u>Reward allocation</u>								
21	The improvement initiative provides opportunities for development and accomplishment	120	1	4	2.31	72	25	3	-
22	The reward systems is constantly revised to maintain a high level of desired behaviors	120	1	4	1.81	81	18	1	-
	<u>Diffusion</u>								
23	There is a wide organizational acceptance towards the new ways of working (NWsW)	120	1	4	2.14	85	8	7	-
24	The NWsW complement the organizational values and norms	120	1	4	2.29	78	12	10	-
	<u>Sensing &amp; calibration</u>								
25	There are continuous assessments conducted in the form of Internal audit	120	3	7	5.28	-	1	13	43
26	Variation in performances/ preferences/ norms and values are corrected	120	2	6	2.87	32	53	13	2
	<u>Knowledge</u>								
27	Organization members have knowledge of the NWsW and behaviors associated with the improvement initiative	120	1	4	2.56	47	47	7	-
28	Organization members have knowledge to perform the NWsW	120	1	4	2.23	77	21	3	-
	<u>Performance</u>								
29	I feel a vast majority of the members are performing the NWsW	120	1	4	2.27	76	18	7	-
	<u>Preferences</u>								
30	The NWsW have assisted me understand the business better	120	1	4	2.10	89	7	4	-
31	The NWsW has facilitated my work	120	1	4	2.04	92	5	3	-
	<u>Normative consensus</u>								
32	The organizational changes are in line with the business	120	1	5	2.19	80	18	2	1

No.		N	Min	Max	Mean	Percentage			
	<u>requirements</u>								
	<u>Value consensus</u>								
33	The changes has promoted and the concept of internal customer service [your next process is your customer]	120	1	5	2.73	49	29	20	2
34	The changes has promoted and the concept of external customer service	120	1	6	2.78	50	23	24	2
35	There is an effective customer complaint handling system	120	2	6	3.50	19	20	53	7
36	The change has promoted the concept of team work and cohesiveness	120	1	5	2.25	75	22	2	2
37	The change has promoted the concept of continuous learning	120	1	5	2.23	73	23	3	1

## **APPENDIX 17**

(SPSS ANOVA Test Output - 'Position' V. Statements)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q1	Between Groups	2.918	2	1.459	1.515	.224
	Within Groups	112.673	117	.963		
	Total	115.592	119			
Q2	Between Groups	13.950	2	6.975	8.092	.001
	Within Groups	100.842	117	.862		
	Total	114.792	119			
Q3	Between Groups	2.584	2	1.292	5.514	.005
	Within Groups	27.408	117	.234		
	Total	29.992	119			
Q4	Between Groups	17.902	2	8.951	13.704	.000
	Within Groups	76.423	117	.653		
	Total	94.325	119			
Q7	Between Groups	15.196	2	7.598	15.932	.000
	Within Groups	55.796	117	.477		
	Total	70.992	119			
Q8	Between Groups	1.410	2	.705	1.497	.228
	Within Groups	55.090	117	.471		
	Total	56.500	119			
Q9	Between Groups	100.124	2	50.062	63.071	.000
	Within Groups	92.868	117	.794		
	Total	192.992	119			
Q10	Between Groups	4.162	2	2.081	4.215	.017
	Within Groups	57.763	117	.494		
	Total	61.925	119			
Q11	Between Groups	74.650	2	37.325	56.030	.000
	Within Groups	77.942	117	.666		
	Total	152.592	119			
Q12	Between Groups	4.439	2	2.220	2.664	.074
	Within Groups	97.486	117	.833		
	Total	101.925	119			
Q13	Between Groups	.938	2	.469	1.167	.315
	Within Groups	47.053	117	.402		
	Total	47.992	119			
Q14	Between Groups	.000	2	.000		
	Within Groups	.000	117	.000		
	Total	.000	119			
Q15	Between Groups	67.116	2	33.558	57.902	.000
	Within Groups	67.809	117	.580		
	Total	134.925	119			
Q16	Between Groups	140.637	2	70.319	55.529	.000
	Within Groups	148.163	117	1.266		
	Total	288.800	119			
Q17	Between Groups	32.512	2	16.256	13.274	.000
	Within Groups	143.280	117	1.225		
	Total	175.792	119			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q18	Between Groups	5.011	2	2.505	2.745	.068
	Within Groups	106.781	117	.913		
	Total	111.792	119			
Q19	Between Groups	2.845	2	1.422	1.964	.145
	Within Groups	84.747	117	.724		
	Total	87.592	119			
Q20	Between Groups	.565	2	.283	.557	.574
	Within Groups	59.302	117	.507		
	Total	59.867	119			
Q21	Between Groups	.962	2	.481	1.625	.201
	Within Groups	34.630	117	.296		
	Total	35.592	119			
Q22	Between Groups	9.887	2	4.943	9.852	.000
	Within Groups	58.705	117	.502		
	Total	68.592	119			
Q23	Between Groups	.972	2	.486	1.194	.307
	Within Groups	47.620	117	.407		
	Total	48.592	119			
Q24	Between Groups	.709	2	.354	.767	.467
	Within Groups	54.083	117	.462		
	Total	54.792	119			
Q25	Between Groups	4.494	2	2.247	4.391	.014
	Within Groups	59.873	117	.512		
	Total	64.367	119			
Q26	Between Groups	10.057	2	5.029	10.177	.000
	Within Groups	57.810	117	.494		
	Total	67.867	119			
Q27	Between Groups	.974	2	.487	1.043	.356
	Within Groups	54.618	117	.467		
	Total	55.592	119			
Q28	Between Groups	2.251	2	1.125	4.030	.020
	Within Groups	32.674	117	.279		
	Total	34.925	119			
Q29	Between Groups	.806	2	.403	.969	.383
	Within Groups	48.661	117	.416		
	Total	49.467	119			
Q30	Between Groups	.696	2	.348	1.269	.285
	Within Groups	32.104	117	.274		
	Total	32.800	119			
Q31	Between Groups	1.484	2	.742	2.961	.056
	Within Groups	29.308	117	.250		
	Total	30.792	119			
Q32	Between Groups	8.073	2	3.036	10.924	.000
	Within Groups	32.519	117	.278		
	Total	38.592	119			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q33	Between Groups	6.200	2	3.100	4.438	.014
	Within Groups	81.725	117	.699		
	Total	87.925	119			
Q34	Between Groups	6.695	2	3.347	3.929	.022
	Within Groups	99.672	117	.852		
	Total	106.367	119			
Q35	Between Groups	14.104	2	7.052	9.834	.000
	Within Groups	83.896	117	.717		
	Total	98.000	119			
Q36	Between Groups	4.031	2	2.016	5.075	.008
	Within Groups	46.469	117	.397		
	Total	50.500	119			
Q37	Between Groups	1.026	2	.513	1.074	.345
	Within Groups	55.899	117	.478		
	Total	56.925	119			
Q38	Between Groups	.641	2	.321	2.340	.101
	Within Groups	16.026	117	.137		
	Total	16.667	119			
Q39	Between Groups	.047	2	.023	.254	.776
	Within Groups	10.753	117	.092		
	Total	10.800	119			
Q40	Between Groups	.539	2	.269	1.222	.298
	Within Groups	25.786	117	.220		
	Total	26.325	119			
Q41	Between Groups	3.812	2	1.906	5.851	.004
	Within Groups	38.113	117	.326		
	Total	41.925	119			
Q42	Between Groups	3.812	2	1.906	5.851	.004
	Within Groups	38.113	117	.326		
	Total	41.925	119			
Q43	Between Groups	.190	2	.095	.626	.536
	Within Groups	17.776	117	.152		
	Total	17.967	119			
Q44	Between Groups	.171	2	.086	.942	.393
	Within Groups	10.629	117	.091		
	Total	10.800	119			
Q45	Between Groups	.462	2	.231	.594	.554
	Within Groups	45.529	117	.389		
	Total	45.992	119			
Q46	Between Groups	2.169	2	1.084	2.733	.069
	Within Groups	46.423	117	.397		
	Total	48.592	119			
Q47	Between Groups	4.369	2	2.184	2.090	.128
	Within Groups	122.298	117	1.045		
	Total	126.667	119			



## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q48	Between Groups	.120	2	.060	.464	.630
	Within Groups	15.180	117	.130		
	Total	15.300	119			
Q49	Between Groups	.559	2	.280	2.277	.107
	Within Groups	14.366	117	.123		
	Total	14.925	119			

# APPENDIX 18

(SPSS Cross-tab Analysis - 'Position' V. 'Level of Agreement')

Q2 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clearical & controller	Technician & operators	
Q2	StronglyDisagree			8	8
	Disagree	5	8	39	52
	SlightlyDisagree	8	6	17	31
	Neutral	1	11	13	25
	SlightlyAgree	4			4
Total		18	25	77	120

Q4 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clearical & controller	Technician & operators	
Q4	StronglyDisagree			7	7
	Disagree	1		27	28
	SlightlyDisagree	11	14	30	55
	Neutral	3	11	13	27
	SlightlyAgree	3			3
Total		18	25	77	120

Q7 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clearical & controller	Technician & operators	
Q7	StronglyDisagree			4	4
	Disagree		10	45	55
	SlightlyDisagree	14	13	23	50
	Neutral	1	2	5	8
	SlightlyAgree	3			3
Total		18	25	77	120

Q9 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clearical & controller	Technician & operators	
Q9	StronglyDisagree			9	9
	Disagree			27	27
	SlightlyDisagree		3	21	24
	Neutral	1	18	18	37
	SlightlyAgree	14	4	2	20
	Agree	3			3
Total		18	25	77	120

### Q11 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q11	StronglyDisagree			4	4
	Disagree		2	39	41
	SlightlyDisagree	2	2	21	25
	Neutral	4	18	12	34
	SlightlyAgree	12	3	1	16
Total		18	25	77	120

### Q15 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q15	Disagree		2	6	8
	SlightlyDisagree		3	26	29
	Neutral		11	44	55
	SlightlyAgree	8	8		16
	Agree	8	1	1	10
	StronglyAgree	2			2
Total		18	25	77	120

### Q16 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q16	StronglyDisagree			6	6
	Disagree		4	45	49
	SlightlyDisagree			12	12
	Neutral		2	2	4
	SlightlyAgree	13	18	11	42
	Agree	5	1	1	7
Total		18	25	77	120

### Q17 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q17	StronglyDisagree			3	3
	Disagree		8	33	41
	SlightlyDisagree	5	3	20	28
	Neutral	5	8	15	28
	SlightlyAgree	6	5	5	16
	Agree	2	1	1	4
Total		18	25	77	120

### Q22 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q22	StronglyDisagree	13	19	15	47
	Disagree		4	46	50
	SlightlyDisagree	4	2	16	22
	Neutral	1			1
Total		18	25	77	120

### Q26 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q26	Disagree		9	29	38
	SlightlyDisagree	12	13	39	64
	Neutral	3	3	9	15
	SlightlyAgree	2			2
	Agree	1			1
Total		18	25	77	120

### Q32 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q32	StronglyDisagree			5	5
	Disagree	9	24	58	91
	SlightlyDisagree	6	1	14	21
	Neutral	2			2
	SlightlyAgree	1			1
Total		18	25	77	120

# Q35 \* POST.MOD Crosstabulation

Count

		POST.MOD			Total
		Managerial	Clerical & controller	Technician & operators	
Q35	Disagree			23	23
	SlightlyDisagree	5	6	13	24
	Neutral	8	16	40	64
	SlightlyAgree	4	3	1	8
	Agree	1			1
Total		18	25	77	120

# APPENDIX 19

(SPSS ANOVA Test Output - 'years of service' V. Statements)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q1	Between Groups	31.687	3	10.562	14.603	.000
	Within Groups	83.905	116	.723		
	Total	115.592	119			
Q2	Between Groups	20.454	3	6.818	8.384	.000
	Within Groups	94.338	116	.813		
	Total	114.792	119			
Q3	Between Groups	2.570	3	.857	3.624	.015
	Within Groups	27.422	116	.236		
	Total	29.992	119			
Q4	Between Groups	18.163	3	6.054	9.221	.000
	Within Groups	76.162	116	.657		
	Total	94.325	119			
Q7	Between Groups	12.611	3	4.204	8.353	.000
	Within Groups	58.380	116	.503		
	Total	70.992	119			
Q8	Between Groups	7.144	3	2.381	5.597	.001
	Within Groups	49.356	116	.425		
	Total	56.500	119			
Q9	Between Groups	35.668	3	11.889	8.766	.000
	Within Groups	157.323	116	1.356		
	Total	192.992	119			
Q10	Between Groups	1.968	3	.656	1.269	.288
	Within Groups	59.957	116	.517		
	Total	61.925	119			
Q11	Between Groups	27.807	3	9.269	8.617	.000
	Within Groups	124.784	116	1.076		
	Total	152.592	119			
Q12	Between Groups	15.363	3	5.121	6.862	.000
	Within Groups	86.562	116	.746		
	Total	101.925	119			
Q13	Between Groups	5.032	3	1.677	4.529	.005
	Within Groups	42.960	116	.370		
	Total	47.992	119			
Q14	Between Groups	.000	3	.000		
	Within Groups	.000	116	.000		
	Total	.000	119			
Q15	Between Groups	28.963	3	9.654	10.569	.000
	Within Groups	105.962	116	.913		
	Total	134.925	119			
Q16	Between Groups	41.086	3	13.695	6.413	.000
	Within Groups	247.714	116	2.135		
	Total	288.800	119			
Q17	Between Groups	29.578	3	9.859	7.822	.000
	Within Groups	146.214	116	1.260		
	Total	175.792	119			



## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q18	Between Groups	10.332	3	3.444	3.938	.010
	Within Groups	101.460	116	.875		
	Total	111.792	119			
Q19	Between Groups	13.889	3	4.630	7.287	.000
	Within Groups	73.703	116	.635		
	Total	87.592	119			
Q20	Between Groups	5.456	3	1.819	3.877	.011
	Within Groups	54.410	116	.469		
	Total	59.867	119			
Q21	Between Groups	6.781	3	2.260	9.101	.000
	Within Groups	28.810	116	.248		
	Total	35.592	119			
Q22	Between Groups	4.906	3	1.635	2.978	.034
	Within Groups	63.686	116	.549		
	Total	68.592	119			
Q23	Between Groups	.436	3	.145	.350	.789
	Within Groups	48.156	116	.415		
	Total	48.592	119			
Q24	Between Groups	1.129	3	.376	.814	.489
	Within Groups	53.662	116	.463		
	Total	54.792	119			
Q25	Between Groups	6.057	3	2.019	4.017	.009
	Within Groups	58.309	116	.503		
	Total	64.367	119			
Q26	Between Groups	17.341	3	5.780	13.271	.000
	Within Groups	50.525	116	.436		
	Total	67.867	119			
Q27	Between Groups	.891	3	.297	.629	.597
	Within Groups	54.701	116	.472		
	Total	55.592	119			
Q28	Between Groups	3.589	3	1.190	4.401	.006
	Within Groups	31.356	116	.270		
	Total	34.925	119			
Q29	Between Groups	.757	3	.252	.601	.616
	Within Groups	48.709	116	.420		
	Total	49.467	119			
Q30	Between Groups	4.796	3	1.599	6.622	.000
	Within Groups	28.004	116	.241		
	Total	32.800	119			
Q31	Between Groups	1.435	3	.478	1.889	.135
	Within Groups	29.357	116	.253		
	Total	30.792	119			
Q32	Between Groups	12.473	3	4.158	18.466	.000
	Within Groups	26.118	116	.225		
	Total	38.592	119			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q33	Between Groups	10.959	3	3.653	5.506	.001
	Within Groups	76.966	116	.664		
	Total	87.925	119			
Q34	Between Groups	21.053	3	7.018	9.542	.000
	Within Groups	85.314	116	.735		
	Total	106.367	119			
Q35	Between Groups	13.397	3	4.466	6.123	.001
	Within Groups	84.603	116	.729		
	Total	98.000	119			
Q36	Between Groups	12.116	3	4.039	12.205	.000
	Within Groups	38.384	116	.331		
	Total	50.500	119			
Q37	Between Groups	10.080	3	3.360	8.320	.000
	Within Groups	46.845	116	.404		
	Total	56.925	119			
Q38	Between Groups	1.732	3	.577	4.485	.005
	Within Groups	14.934	116	.129		
	Total	16.667	119			
Q39	Between Groups	.255	3	.085	.933	.427
	Within Groups	10.545	116	.091		
	Total	10.800	119			
Q40	Between Groups	1.889	3	.630	2.988	.034
	Within Groups	24.436	116	.211		
	Total	26.325	119			
Q41	Between Groups	2.378	3	.793	2.325	.079
	Within Groups	39.547	116	.341		
	Total	41.925	119			
Q42	Between Groups	2.378	3	.793	2.325	.079
	Within Groups	39.547	116	.341		
	Total	41.925	119			
Q43	Between Groups	2.039	3	.680	4.951	.003
	Within Groups	15.927	116	.137		
	Total	17.967	119			
Q44	Between Groups	1.818	3	.606	7.827	.000
	Within Groups	8.982	116	.077		
	Total	10.800	119			
Q45	Between Groups	1.389	3	.463	1.204	.311
	Within Groups	44.603	116	.385		
	Total	45.992	119			
Q46	Between Groups	1.587	3	.529	1.306	.276
	Within Groups	47.004	116	.405		
	Total	48.592	119			
Q47	Between Groups	1.564	3	.521	.483	.694
	Within Groups	125.103	116	1.078		
	Total	126.667	119			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q48	Between Groups	1.965	3	.655	5.698	.001
	Within Groups	13.335	116	.115		
	Total	15.300	119			
Q49	Between Groups	.037	3	.012	.096	.962
	Within Groups	14.888	116	.128		
	Total	14.925	119			

# APPENDIX 20

(SPSS Cross-tab Analysis - 'Years-of-service' V. 'Level of Agreement')

**Q1 \* YRSSRVC Crosstabulation**

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q1	StronglyDisagree		9			9
	Disagree	7	47			54
	SlightlyDisagree	3	28	1		32
	Neutral	4	15	4		23
	Agree				2	2
Total		14	99	5	2	120

**Q2 \* YRSSRVC Crosstabulation**

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q2	StronglyDisagree		8			8
	Disagree	10	42			52
	SlightlyDisagree	2	27	2		31
	Neutral	2	22	1		25
	SlightlyAgree			2	2	4
Total		14	99	5	2	120

**Q4 \* YRSSRVC Crosstabulation**

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q4	StronglyDisagree	2	5			7
	Disagree	8	20			28
	SlightlyDisagree	2	51	2		55
	Neutral	2	23	2		27
	SlightlyAgree			1	2	3
Total		14	99	5	2	120

**Q7 \* YRSSRVC Crosstabulation**

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q7	StronglyDisagree	2	2			4
	Disagree	9	46			55
	SlightlyDisagree	2	44	4		50
	Neutral		7		1	8
	SlightlyAgree	1		1	1	3
Total		14	99	5	2	120

### Q8 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q8	StronglyDisagree	1	10			11
	Disagree	7	64	3		74
	SlightlyDisagree	5	22	2		29
	Neutral	1	3		2	6
Total		14	99	5	2	120

### Q9 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q9	StronglyDisagree	3	6			9
	Disagree	5	22			27
	SlightlyDisagree	4	20			24
	Neutral	2	33	2		37
	SlightlyAgree		17	3		20
	Agree		1		2	3
Total		14	99	5	2	120

### Q11 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q11	StronglyDisagree	2	2			4
	Disagree	7	34			41
	SlightlyDisagree	4	21			25
	Neutral	1	31	2		34
	SlightlyAgree		11	3	2	16
Total		14	99	5	2	120

### Q12 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q12	StronglyDisagree	2	2			4
	Disagree	8	47	1		56
	SlightlyDisagree	2	29	2		33
	Neutral	2	20	1		23
	SlightlyAgree		1	1	2	4
Total		14	99	5	2	120

### Q15 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q15	Disagree	3	5			8
	SlightlyDisagree	4	25			29
	Neutral	6	47	2		55
	SlightlyAgree	1	14	1		16
	Agree		8	2		10
	StronglyAgree				2	2
Total		14	99	5	2	120

### Q16 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q16	StronglyDisagree		6			6
	Disagree	9	40			49
	SlightlyDisagree	4	8			12
	Neutral		4			4
	SlightlyAgree	1	37	4		42
	Agree		4	1	2	7
Total		14	99	5	2	120

### Q17 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q17	StronglyDisagree	2	1			3
	Disagree	7	34			41
	SlightlyDisagree	4	23	1		28
	Neutral	1	25	2		28
	SlightlyAgree		14	1	1	16
	Agree		2	1	1	4
Total		14	99	5	2	120

### Q19 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q19	StronglyDisagree		10			10
	Disagree	5	34	1		40
	SlightlyDisagree	7	47	2		56
	Neutral	2	7	2		11
	SlightlyAgree		1		2	3
Total		14	99	5	2	120

Q21 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q21	StronglyDisagree		1			1
	Disagree	9	73	3		85
	SlightlyDisagree	4	25	1		30
	Neutral	1		1	2	4
Total		14	99	5	2	120

Q26 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q26	Disagree	5	33			38
	SlightlyDisagree	6	55	3		64
	Neutral	3	11	1		15
	SlightlyAgree			1	1	2
	Agree				1	1
Total		14	99	5	2	120

Q30 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q30	StronglyDisagree	3	3			6
	Disagree	10	87	4		101
	SlightlyDisagree	1	5	1	1	8
	Neutral		4		1	5
Total		14	99	5	2	120

Q32 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q32	StronglyDisagree		5			5
	Disagree	9	79	3		91
	SlightlyDisagree	4	15	2		21
	Neutral	1			1	2
	SlightlyAgree				1	1
Total		14	99	5	2	120



Q33 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q33	StronglyDisagree		2			2
	Disagree	8	49			57
	SlightlyDisagree	1	31	3		35
	Neutral	5	17	1	1	24
	SlightlyAgree			1	1	2
Total		14	99	5	2	120

Q34 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q34	StronglyDisagree		2			2
	Disagree	8	50			58
	SlightlyDisagree	1	25	2		28
	Neutral	5	22	2		29
	SlightlyAgree			1	1	2
	Agree				1	1
Total		14	99	5	2	120

Q35 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q35	Disagree	5	18			23
	SlightlyDisagree	2	22			24
	Neutral	6	55	3		64
	SlightlyAgree	1	4	2	1	8
	Agree				1	1
Total		14	99	5	2	120

Q36 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q36	StronglyDisagree	2	4			6
	Disagree	8	73	3		84
	SlightlyDisagree	3	22	1		26
	Neutral	1			1	2
	SlightlyAgree			1	1	2
Total		14	99	5	2	120

### Q37 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q37	StronglyDisagree	1	10			11
	Disagree	7	68	2		77
	SlightlyDisagree	4	20	2	1	27
	Neutral	2	1	1		4
	SlightlyAgree				1	1
Total		14	99	5	2	120

### Q43 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q43	NotSatisfactory	14	81	3		98
	SlightlyNotSatisfactory		18	2	2	22
Total		14	99	5	2	120

### Q44 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q44	Outstanding	14	90	4		108
	ExtremelyOutstanding		9	1	2	12
Total		14	99	5	2	120

### Q48 \* YRSSRVC Crosstabulation

Count

		YRSSRVC				Total
		<1yr	1-5yrs	6-10yrs	11-20yrs	
Q48	Outstanding	11	88	3		102
	ExtremelyOutstanding	3	11	2	2	18
Total		14	99	5	2	120

# APPENDIX 21

(SPSS ANOVA Test Output - 'Departments' V. Statements)

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q1	Between Groups	14.013	5	2.803	3.145	.011
	Within Groups	101.579	114	.891		
	Total	115.592	119			
Q2	Between Groups	1.547	5	.309	.312	.905
	Within Groups	113.244	114	.993		
	Total	114.792	119			
Q3	Between Groups	1.953	5	.391	1.588	.169
	Within Groups	28.038	114	.246		
	Total	29.992	119			
Q4	Between Groups	9.845	5	1.969	2.657	.026
	Within Groups	84.480	114	.741		
	Total	94.325	119			
Q7	Between Groups	1.187	5	.237	.388	.856
	Within Groups	69.805	114	.612		
	Total	70.992	119			
Q8	Between Groups	3.566	5	.713	1.536	.184
	Within Groups	52.934	114	.464		
	Total	56.500	119			
Q9	Between Groups	23.545	5	4.709	3.168	.010
	Within Groups	169.446	114	1.486		
	Total	192.992	119			
Q10	Between Groups	4.702	5	.940	1.873	.104
	Within Groups	57.223	114	.502		
	Total	61.925	119			
Q11	Between Groups	12.741	5	2.548	2.077	.073
	Within Groups	139.851	114	1.227		
	Total	152.592	119			
Q12	Between Groups	7.957	5	1.591	1.931	.095
	Within Groups	93.968	114	.824		
	Total	101.925	119			
Q13	Between Groups	2.054	5	.411	1.019	.410
	Within Groups	45.938	114	.403		
	Total	47.992	119			
Q14	Between Groups	.000	5	.000		
	Within Groups	.000	114	.000		
	Total	.000	119			
Q15	Between Groups	18.221	5	3.644	3.560	.005
	Within Groups	116.704	114	1.024		
	Total	134.925	119			
Q16	Between Groups	21.455	5	4.291	1.830	.113
	Within Groups	267.345	114	2.345		
	Total	288.800	119			
Q17	Between Groups	10.976	5	2.195	1.518	.190
	Within Groups	164.815	114	1.446		
	Total	175.792	119			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q18	Between Groups	13.993	5	2.799	3.262	.009
	Within Groups	97.799	114	.858		
	Total	111.792	119			
Q19	Between Groups	13.470	5	2.694	4.143	.002
	Within Groups	74.122	114	.650		
	Total	87.592	119			
Q20	Between Groups	10.312	5	2.062	4.745	.001
	Within Groups	49.555	114	.435		
	Total	59.867	119			
Q21	Between Groups	2.639	5	.528	1.826	.113
	Within Groups	32.952	114	.289		
	Total	35.592	119			
Q22	Between Groups	3.869	5	.774	1.363	.244
	Within Groups	64.723	114	.568		
	Total	68.592	119			
Q23	Between Groups	3.406	5	.681	1.719	.136
	Within Groups	45.186	114	.396		
	Total	48.592	119			
Q24	Between Groups	2.206	5	.441	.957	.448
	Within Groups	52.585	114	.461		
	Total	54.792	119			
Q25	Between Groups	3.933	5	.787	1.484	.201
	Within Groups	60.434	114	.530		
	Total	64.367	119			
Q26	Between Groups	1.656	5	.331	.570	.723
	Within Groups	66.211	114	.581		
	Total	67.867	119			
Q27	Between Groups	4.854	5	.971	2.181	.061
	Within Groups	50.737	114	.445		
	Total	55.592	119			
Q28	Between Groups	1.519	5	.304	1.036	.400
	Within Groups	33.406	114	.293		
	Total	34.925	119			
Q29	Between Groups	1.695	5	.339	.809	.545
	Within Groups	47.771	114	.419		
	Total	49.467	119			
Q30	Between Groups	3.001	5	.600	2.296	.050
	Within Groups	29.799	114	.261		
	Total	32.800	119			
Q31	Between Groups	2.260	5	.452	1.806	.117
	Within Groups	28.531	114	.250		
	Total	30.792	119			
Q32	Between Groups	2.888	5	.578	1.844	.110
	Within Groups	35.704	114	.313		
	Total	38.592	119			

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q33	Between Groups	6.172	5	1.234	1.721	.135
	Within Groups	81.753	114	.717		
	Total	87.925	119			
Q34	Between Groups	2.826	5	.565	.622	.683
	Within Groups	103.540	114	.908		
	Total	106.367	119			
Q35	Between Groups	12.589	5	2.518	3.361	.007
	Within Groups	85.411	114	.749		
	Total	98.000	119			
Q36	Between Groups	6.847	5	1.369	3.576	.005
	Within Groups	43.653	114	.383		
	Total	50.500	119			
Q37	Between Groups	1.309	5	.262	.537	.748
	Within Groups	55.616	114	.488		
	Total	56.925	119			
Q38	Between Groups	1.248	5	.250	1.846	.109
	Within Groups	15.418	114	.135		
	Total	16.667	119			
Q39	Between Groups	1.192	5	.238	2.830	.019
	Within Groups	9.608	114	.084		
	Total	10.800	119			
Q40	Between Groups	3.614	5	.723	3.628	.004
	Within Groups	22.711	114	.199		
	Total	26.325	119			
Q41	Between Groups	4.371	5	.874	2.654	.026
	Within Groups	37.554	114	.329		
	Total	41.925	119			
Q42	Between Groups	4.371	5	.874	2.654	.026
	Within Groups	37.554	114	.329		
	Total	41.925	119			
Q43	Between Groups	.704	5	.141	.930	.464
	Within Groups	17.263	114	.151		
	Total	17.967	119			
Q44	Between Groups	.246	5	.049	.532	.752
	Within Groups	10.554	114	.093		
	Total	10.800	119			
Q45	Between Groups	6.951	5	1.390	4.059	.002
	Within Groups	39.041	114	.342		
	Total	45.992	119			
Q46	Between Groups	7.802	5	1.560	4.361	.001
	Within Groups	40.789	114	.358		
	Total	48.592	119			
Q47	Between Groups	27.452	5	5.490	6.308	.000
	Within Groups	99.215	114	.870		
	Total	126.667	119			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q48	Between Groups	.667	5	.133	1.039	.398
	Within Groups	14.633	114	.128		
	Total	15.300	119			
Q49	Between Groups	1.639	5	.328	2.813	.020
	Within Groups	13.286	114	.117		
	Total	14.925	119			

## **APPENDIX 22**

(SPSS 'T' Test Output - 'Gender' V. Statements)



# One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Q1	120	2.64	.986	.090
Q2	120	2.71	.982	.090
Q3	120	5.16	.502	.046
Q4	120	2.93	.890	.081
Q7	120	2.59	.772	.071
Q8	120	2.25	.689	.063
Q9	120	3.34	1.273	.116
Q10	120	2.28	.721	.066
Q11	120	3.14	1.132	.103
Q12	120	2.73	.925	.084
Q13	120	2.51	.635	.058
Q14	120	1.00	.000 <sup>a</sup>	.000
Q15	120	3.98	1.065	.097
Q16	120	3.40	1.558	.142
Q17	120	3.21	1.215	.111
Q18	120	2.79	.969	.088
Q19	120	2.64	.858	.078
Q20	120	2.47	.709	.065
Q21	120	2.31	.547	.050
Q22	120	1.81	.759	.069
Q23	120	2.14	.639	.058
Q24	120	2.29	.679	.062
Q25	120	5.28	.735	.067
Q26	120	2.87	.755	.069
Q27	120	2.56	.683	.062
Q28	120	2.23	.542	.049
Q29	120	2.27	.645	.059
Q30	120	2.10	.525	.048
Q31	120	2.04	.509	.046
Q32	120	2.19	.569	.052
Q33	120	2.73	.860	.078
Q34	120	2.78	.945	.086
Q35	120	3.50	.907	.083
Q36	120	2.25	.651	.059
Q37	120	2.23	.692	.063
Q38	120	6.17	.374	.034
Q39	120	5.90	.301	.028
Q40	120	3.08	.470	.043
Q41	120	4.53	.594	.054
Q42	120	4.53	.594	.054
Q43	120	2.18	.389	.035
Q44	120	6.10	.301	.028
Q45	120	3.24	.622	.057
Q46	120	3.06	.639	.058
Q47	120	3.17	1.032	.094
Q48	120	6.15	.359	.033
Q49	120	6.03	.354	.032

a. t cannot be computed because the standard deviation is 0.

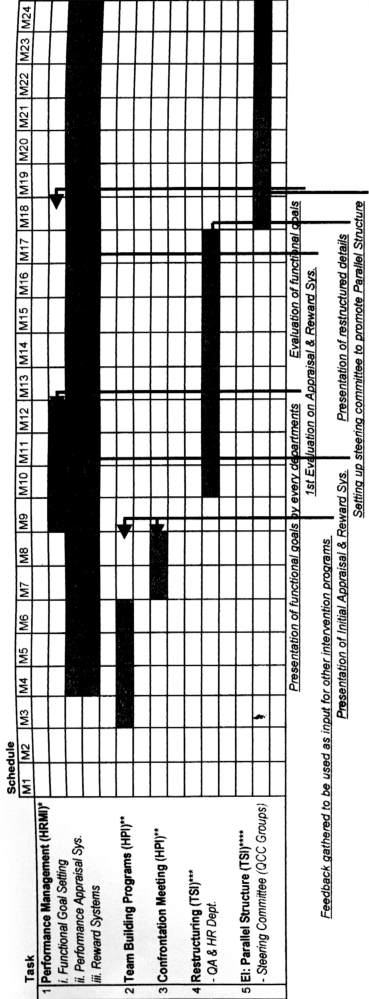
# One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Q1	29.362	119	.000	2.64	2.46	2.82
Q2	30.207	119	.000	2.71	2.53	2.89
Q3	112.557	119	.000	5.16	5.07	5.25
Q4	35.990	119	.000	2.93	2.76	3.09
Q7	36.757	119	.000	2.59	2.45	2.73
Q8	35.770	119	.000	2.25	2.13	2.37
Q9	28.745	119	.000	3.34	3.11	3.57
Q10	34.547	119	.000	2.28	2.14	2.41
Q11	30.392	119	.000	3.14	2.94	3.35
Q12	32.254	119	.000	2.73	2.56	2.89
Q13	43.268	119	.000	2.51	2.39	2.62
Q15	40.894	119	.000	3.98	3.78	4.17
Q16	23.908	119	.000	3.40	3.12	3.68
Q17	28.916	119	.000	3.21	2.99	3.43
Q18	31.552	119	.000	2.79	2.62	2.97
Q19	33.730	119	.000	2.64	2.49	2.80
Q20	38.096	119	.000	2.47	2.34	2.59
Q21	46.237	119	.000	2.31	2.21	2.41
Q22	26.092	119	.000	1.81	1.67	1.95
Q23	36.714	119	.000	2.14	2.03	2.26
Q24	36.996	119	.000	2.29	2.17	2.41
Q25	78.694	119	.000	5.28	5.15	5.42
Q26	41.583	119	.000	2.87	2.73	3.00
Q27	41.003	119	.000	2.56	2.43	2.68
Q28	44.991	119	.000	2.23	2.13	2.32
Q29	38.512	119	.000	2.27	2.15	2.38
Q30	43.817	119	.000	2.10	2.01	2.19
Q31	43.968	119	.000	2.04	1.95	2.13
Q32	42.159	119	.000	2.19	2.09	2.29
Q33	34.728	119	.000	2.73	2.57	2.88
Q34	32.250	119	.000	2.78	2.61	2.95
Q35	42.249	119	.000	3.50	3.34	3.66
Q36	37.836	119	.000	2.25	2.13	2.37
Q37	35.241	119	.000	2.23	2.10	2.35
Q38	180.505	119	.000	6.17	6.10	6.23
Q39	214.538	119	.000	5.90	5.85	5.95
Q40	71.618	119	.000	3.08	2.99	3.16
Q41	83.511	119	.000	4.53	4.42	4.63
Q42	83.511	119	.000	4.53	4.42	4.63
Q43	61.553	119	.000	2.18	2.11	2.25
Q44	221.810	119	.000	6.10	6.05	6.15
Q45	57.121	119	.000	3.24	3.13	3.35
Q46	52.429	119	.000	3.06	2.94	3.17
Q47	33.623	119	.000	3.17	2.98	3.35
Q48	187.886	119	.000	6.15	6.09	6.21
Q49	186.365	119	.000	6.03	5.96	6.09

## **APPENDIX 23**

(Gantt Chart for Intervention Action Plan)

Intervention Action Plan for LRC Hospital Products Sdn Bhd (1st Phase- 2 Years)



Responsibilities Distribution

\*i. - Dept. Heads, ii & iii. - Management Team Lead by Factory Manager

\*\* HR dept.

\*\*\* Representative from both dept., from both HQ & local, Local Factory Manager, Lead by Country's Operation Director

\*\*\*\* Representative from each dept., lead by selected leader, & initiate by Management Team