Institute of Paper Science and Technology

BASE-LINE
2nd Half, 1990

CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JUL-AUG, SEPT-OCT, NOV-DEC, 1990)

A Progress Report

to

THE CONTAINERBOARD & KRAFT PAPER GROUP

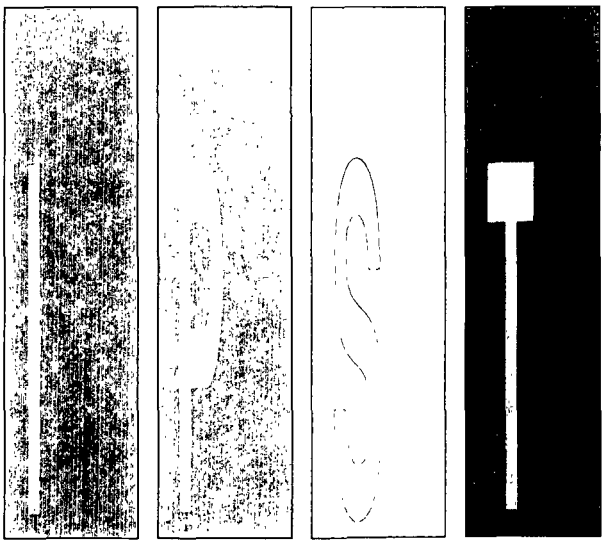
OF THE

AMERICAN PAPER INSTITUTE

Project 2694-1

Report One-Hundred Eight

March 1, 1991



Atlanta, Georgia

BASE-LINE
2nd HALF, 1990

THE INSTITUTE OF PAPER SCIENCE AND TECHNOLOGY

Atlanta, Georgia

CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JUL-AUG, SEPT-OCT, NOV-DEC, 1990)

Project 2694-1

Report One-Hundred Eight

A Progress Report

to

THE CONTAINERBOARD & KRAFT PAPER GROUP

OF THE

AMERICAN PAPER INSTITUTE

Information contained herein is furnished for your internal use only and is not to be disseminated or disclosed outside your company nor copied or otherwise reproduced without the express written permission of The Institute of Paper Science and Technology

March 1, 1991

TABLE OF CONTENTS

SUMMARY		1
TWO YEAR TREND PLOTS		7
INTRODUCTION		19
PRESENTATION OF DATA		19
Presentation Tables:		
Table I-II-III	26-Lb Linerboard, Bimonthly Averages of Mill Data	20-25
Table IV-V-VI	33-Lb Linerboard, Bimonthly Averages of Mill Data	26-32
Table VII-VIII-IX	38-Lb Linerboard, Bimonthly Averages of Mill Data	33-37
Table X-XI-XII	42-Lb Linerboard, Bimonthly Averages of Mill Data	38-43
Table XIII-XIV-XV	69-Lb Linerboard, Bimonthly Averages of Mill Data	44-49
Table XVI-XVII-XVIII	90-lB Linerboard, Bimonthly Averages of Mill Data	50-55
Table XIX	Data on Conditioning and Testing Environments	56-58
APPENDIX	Notes A and B Used in Tabulation of Mill Data	59

THE INSTITUTE OF PAPER SCIENCE AND TECHNOLOGY
Atlanta, Georgia

CONTINUOUS BASE-LINE STUDY (MODIFIED)
(MILL LINERBOARD DATA FOR JUL-AUG, SEPT-OCT, NOV-DEC, 1990)

SUMMARY

PART I: SUMMARY OF MOISTURE CONTENT DATA
(JUL-DEC, 1990)

MOISTURE CONTENT, %

Linerboard Grade Wt.		JUL-AUG		SEPT-OCT		NOV-DEC	
26 Lb.	Max.	7.0		7.0		7.1	
	Min.	4.4		4.6		4.6	
	Ave.	5.6	(14)	5.5	(13)	5.6	(12)
33 Lb.	Max.	7.0		7.0		7.1	
	Min.	4.3		4.1		4.2	
	Ave.	5.8	(23)	5.7	(22)	5.8	(20)
38 Lb.	Max.	6.2		6.5		6.6	
	Min.	5.7		5.3		5.7	
	Ave.	5.9	(15)	5.9	(13)	5.9	(15)
42 Lb.	Max.	7.0		7.1		7.0	
	Min.	5.1		5.0		4.2	
	Ave.	6.0	(35)	6.0	(32)	6.0	(31)
69 Lb.	Max.	7.5		7.4		7.5	
	Min.	5.6		5.7		5.7	
	Ave.	6.4	(23)	6.4	(23)	6.4	(21)
90 Lb.	Max.	8.0		7.9		7.5	
	Min.	5.7		5.7		5.9	
	Ave.	6.6	(11)	6.6	(12)	6.6	(11)

Max. and Min. values are current machine averages.
Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part II: SUMMARY OF ADJUSTED BASIS WEIGHT DATA
(JUL–DEC, 1990)

Adjusted Basis Weight, Lb/M sq ft

Linerboard Grade Wt.		JUL–AUG		SEPT–OCT		NOV–DEC	
26 Lb.	Max.	27.5		27.0		28.2	
	Min.	25.7		25.8		25.7	
	Ave.	26.3	(16)	26.3	(15)	26.5	(14)
33 Lb.	Max.	34.2		34.5		34.5	
	Min.	32.6		32.7		31.7	
	Ave.	33.3	(25)	33.3	(25)	33.3	(24)
38 Lb.	Max.	39.2		39.2		40.1	
	Min.	33.1		37.6		37.6	
	Ave.	38.4	(17)	38.4	(16)	38.5	(18)
42 Lb.	Max.	43.5		43.4		43.5	
	Min.	41.5		41.5		39.9	
	Ave.	42.3	(37)	42.3	(35)	42.1	(35)
69 Lb.	Max.	70.9		70.9		70.9	
	Min.	64.4		68.0		65.3	
	Ave.	69.2	(25)	69.3	(26)	69.1	(24)
90 Lb.	Max.	91.7		91.8		91.7	
	Min.	89.7		88.8		89.5	
	Ave.	90.5	(11)	90.3	(12)	90.3	(11)

Max. and Min. values are current machine averages.
Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part III: SUMMARY OF CALIPER DATA
(JUL-DEC, 1990)

Caliper, pt.

Linerboard Grade Wt.		JUL-AUG		SEPT-OCT		NOV-DEC	
26 Lb.	Max.	8.4		8.4		8.3	
	Min.	6.6		6.7		6.7	
	Ave.	7.4	(15)	7.5	(15)	7.5	(13)
33 Lb.	Max.	10.9		10.4		10.9	
	Min.	8.5		8.4		8.5	
	Ave.	9.4	(25)	9.5	(25)	9.5	(24)
38 Lb.	Max.	12.1		11.6		11.5	
	Min.	9.8		9.9		9.7	
	Ave.	10.7	(17)	10.8	(15)	10.7	(17)
42 Lb.	Max.	12.9		12.9		12.9	
	Min.	10.5		10.6		10.5	
	Ave.	11.6	(37)	11.7	(36)	11.7	(35)
69 Lb.	Max.	20.4		20.6		20.9	
	Min.	15.3		16.7		16.5	
	Ave.	18.6	(25)	19.0	(26)	18.8	(24)
90 Lb.	Max.	26.5		26.0		25.5	
	Min.	20.8		21.0		20.5	
	Ave.	24.3	(11)	24.8	(12)	24.4	(11)

Max. and Min. values are current machine averages.
Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part IV: SUMMARY OF BURSTING STRENGTH DATA
(JUL-DEC, 1990)

Bursting Strength, psig

Linerboard Grade Wt.		JUL-AUG		SEPT-OCT		NOV-DEC	
26 Lb.	Max.	82.8		82.7		79.0	
	Min.	65.0		65.0		66.8	
	Ave.	72.3	(16)	73.2	(15)	72.0	(14)
33 Lb.	Max.	109.3		97.2		101.4	
	Min.	78.0		79.0		82.0	
	Ave.	87.7	(25)	88.1	(25)	88.3	(24)
38 Lb.	Max.	124.7		121.1		111.4	
	Min.	83.0		88.5		90.2	
	Ave.	100.6	(17)	100.3	(16)	99.9	(18)
42 Lb.	Max.	133.3		127.6		121.1	
	Min.	98.0		98.0		97.5	
	Ave.	107.5	(37)	107.4	(36)	107.1	(35)
69 Lb.	Max.	180.2		166.7		176.8	
	Min.	128.0		129.0		133.0	
	Ave.	147.9	(25)	147.1	(27)	148.3	(24)
90 Lb.	Max.	198.0		195.9		196.0	
	Min.	162.5		154.0		156.0	
	Ave.	178.0	(11)	178.4	(13)	174.9	(11)

Max. and Min. values are current machine averages.
Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part V: SUMMARY OF CD RING CRUSH DATA
(JUL–DEC, 1990)

CD Ring Crush, lb

Linerboard Grade Wt.		JUL–AUG		SEPT–OCT		NOV–DEC	
26 Lb.	Max.	51.0		49.0		48.4	
	Min.	28.0		26.0		32.5	
	Ave.	39.5	(10)	40.1	(9)	42.0	(8)
33 Lb.	Max.	72.0		76.2		75.0	
	Min.	42.5		45.0		42.0	
	Ave.	58.6	(16)	60.1	(16)	60.5	(14)
38 Lb.	Max.	90.0		81.2		90.0	
	Min.	45.0		57.0		58.0	
	Ave.	72.3	(13)	70.6	(13)	73.1	(13)
42 Lb.	Max.	98.0		96.4		99.8	
	Min.	63.0		66.0		67.0	
	Ave.	81.2	(25)	81.3	(25)	82.1	(23)
69 Lb.	Max.	172.7		148.0		160.8	
	Min.	112.0		108.0		115.0	
	Ave.	133.7	(19)	130.0	(20)	133.5	(17)
90 Lb.	Max.	198.5		193.6		207.2	
	Min.	144.0		147.0		151.0	
	Ave.	172.9	(8)	167.6	(9)	169.1	(8)

Max. and Min. values are current machine averages.
Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

Part VI: SUMMARY OF STFI DATA
(JUL–DEC, 1990)

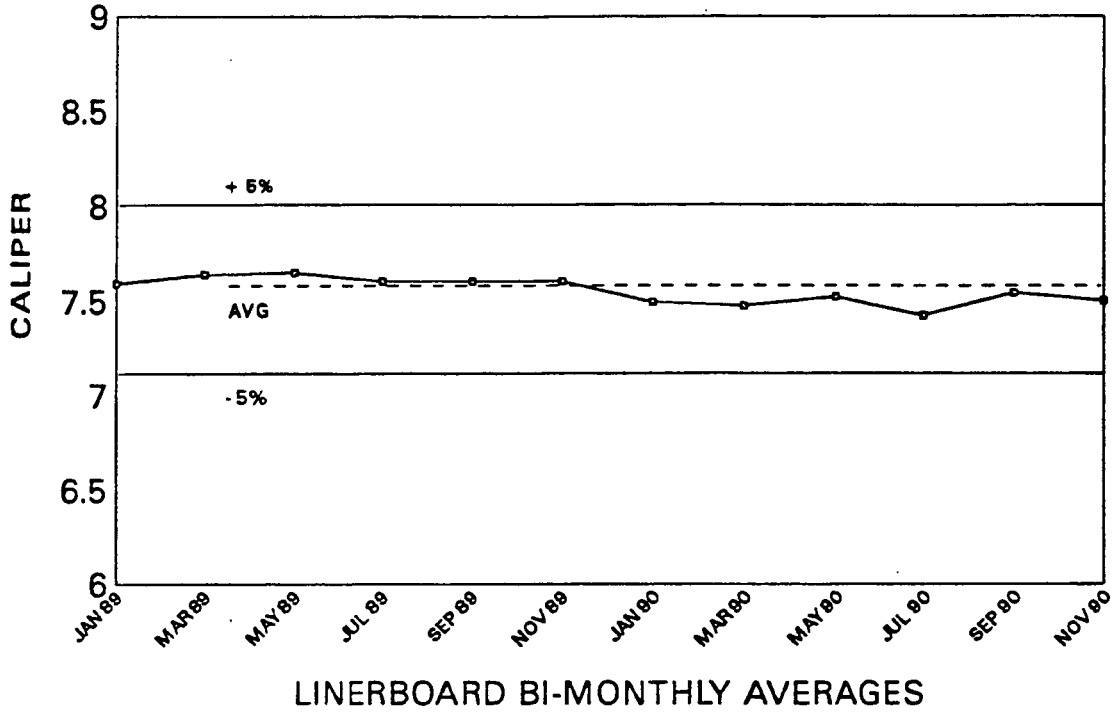
CD STFI, lb/in

Linerboard Grade Wt.		JUL–AUG		SEPT–OCT		NOV–DEC	
26 Lb.	Max.	15.8		17.0		16.0	
	Min.	12.1		11.6		12.4	
	Ave.	13.4	(6)	13.6	(7)	13.7	(5)
33 Lb.	Max.	17.9		20.0		20.0	
	Min.	14.4		14.7		14.1	
	Ave.	16.5	(9)	16.6	(10)	16.5	(9)
38 Lb.	Max.	23.2		22.6		22.0	
	Min.	16.6		16.3		17.3	
	Ave.	19.7	(5)	20.3	(6)	19.9	(5)
42 Lb.	Max.	24.9		24.8		24.0	
	Min.	18.6		19.0		18.4	
	Ave.	21.1	(13)	21.3	(14)	20.9	(13)
69 Lb.	Max.	40.0		39.8		35.0	
	Min.	28.2		29.0		29.1	
	Ave.	33.2	(8)	33.2	(10)	32.1	(9)
90 Lb.	Max.	46.0		46.3		45.7	
	Min.	39.0		40.0		41.5	
	Ave.	42.9	(4)	43.2	(5)	43.0	(4)

Max. and Min. values are current machine averages.
Ave. is current C.K.P.G. average, number of machines is indicated in parentheses.

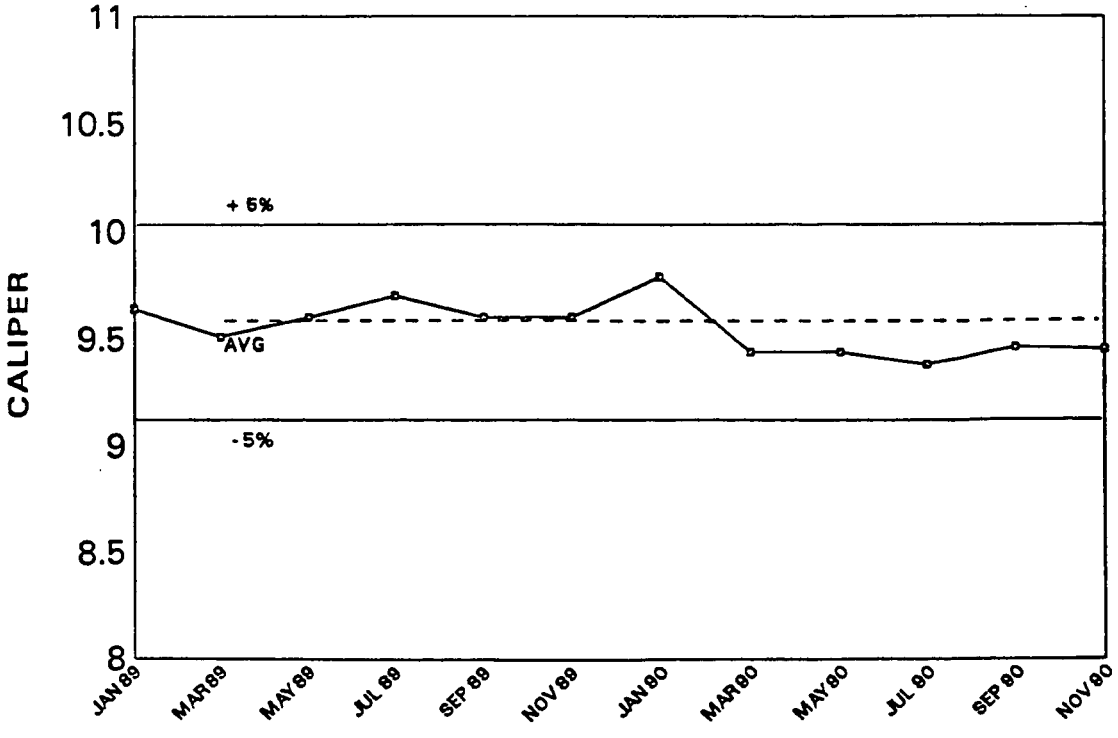
2 YEAR TREND PLOT FOR CALIPER

26 LB



LINERBOARD BI-MONTHLY AVERAGES

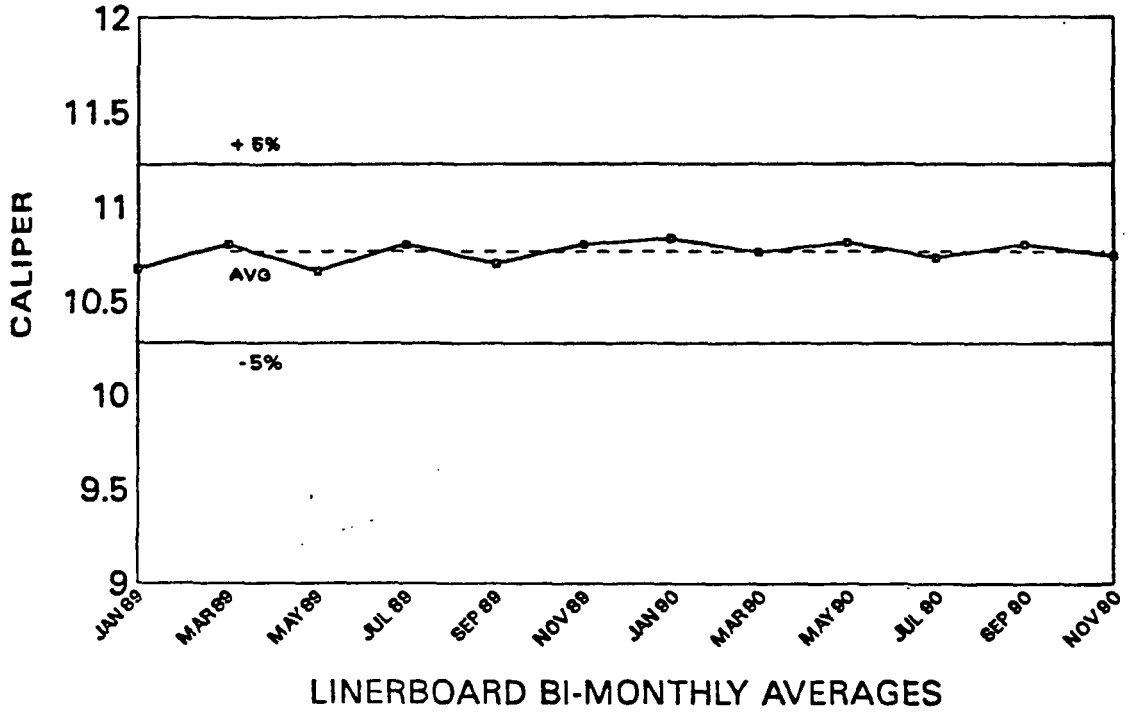
33 LB



LINERBOARD BI-MONTHLY AVERAGES

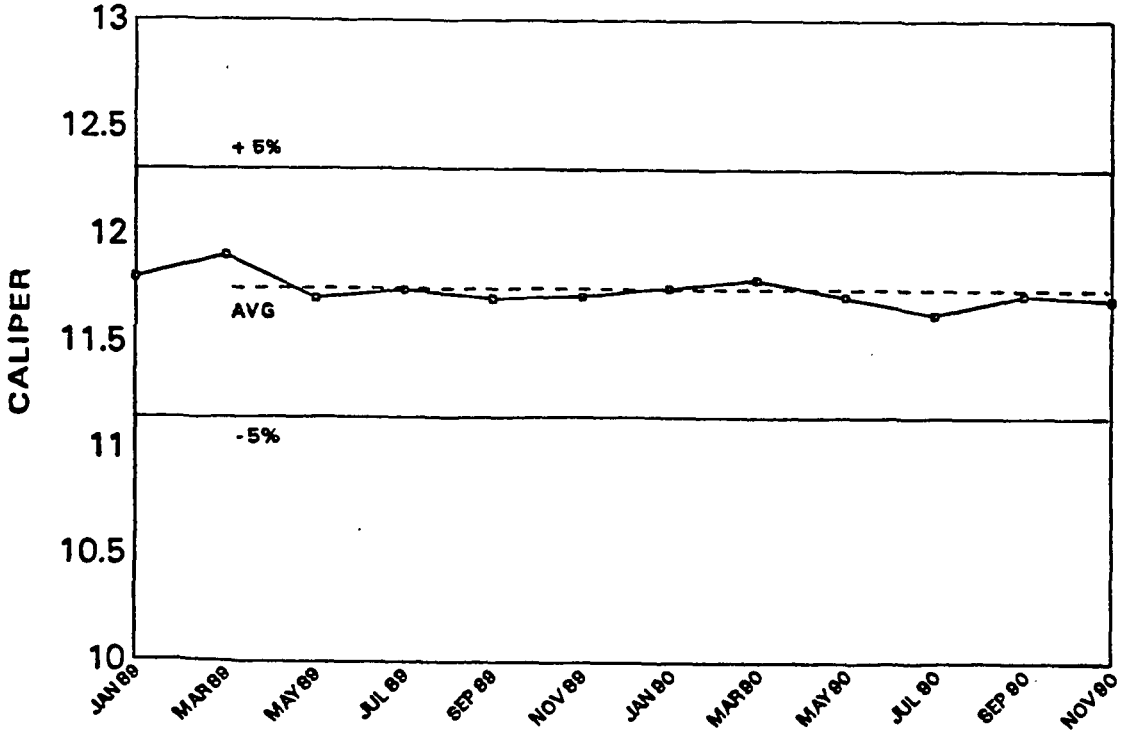
2 YEAR TREND PLOT FOR CALIPER

38 LB



LINERBOARD BI-MONTHLY AVERAGES

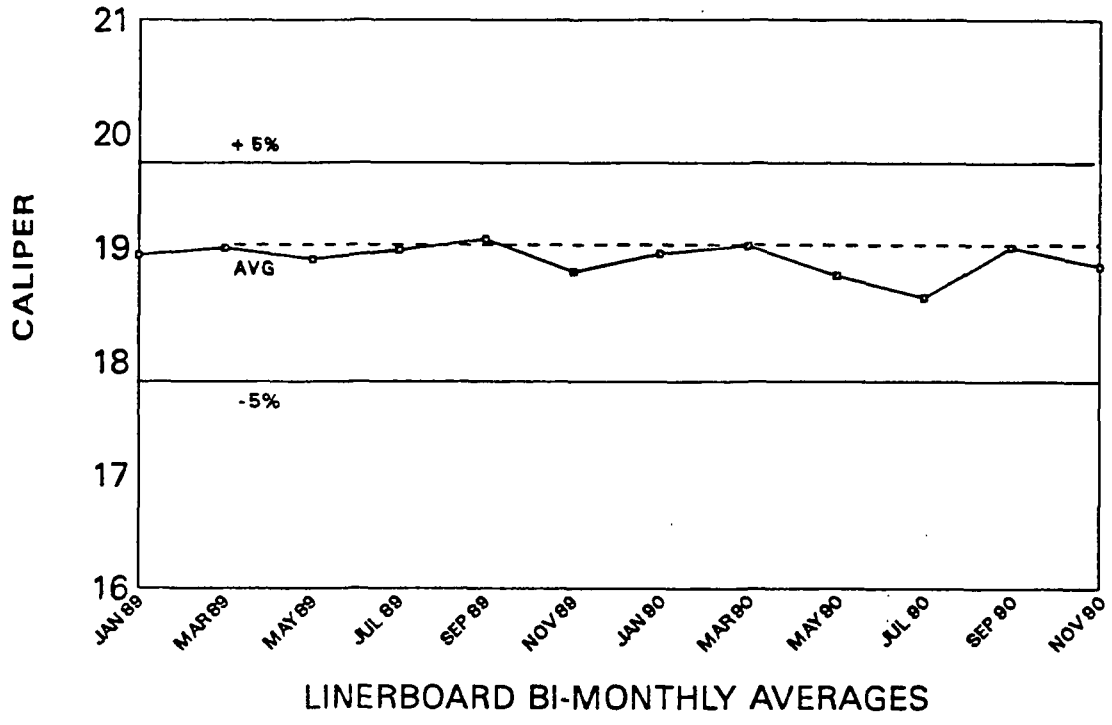
42 LB



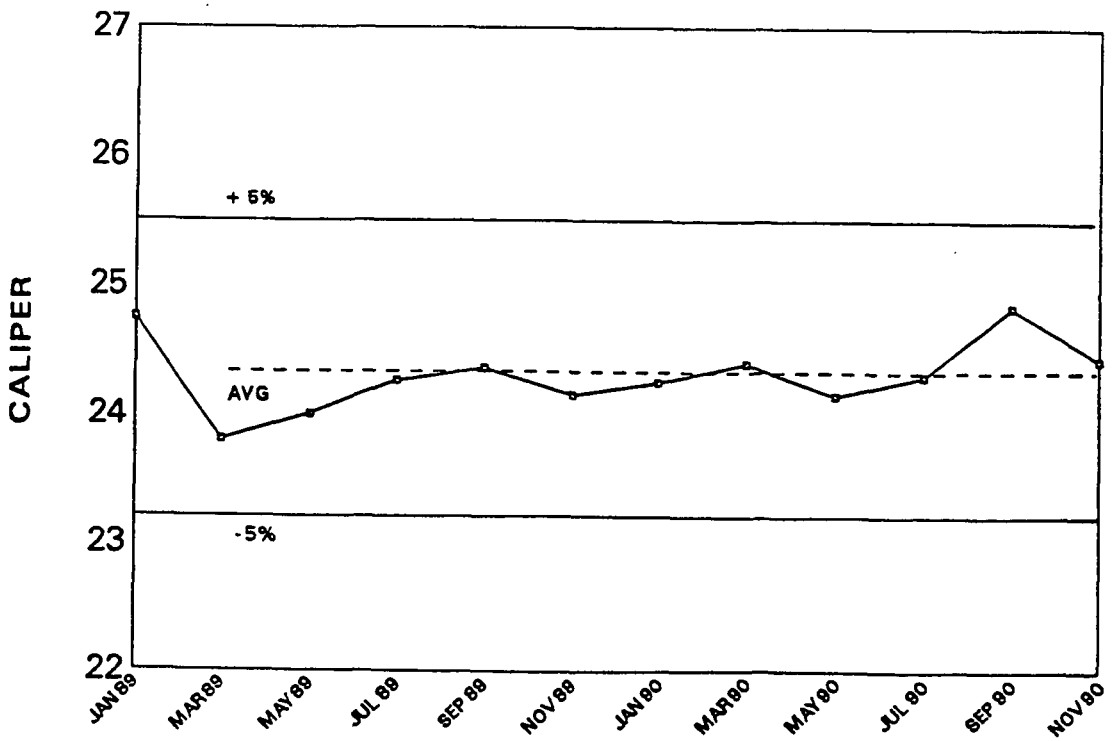
LINERBOARD BI-MONTHLY AVERAGES

2 YEAR TREND PLOT FOR CALIPER

69 LB

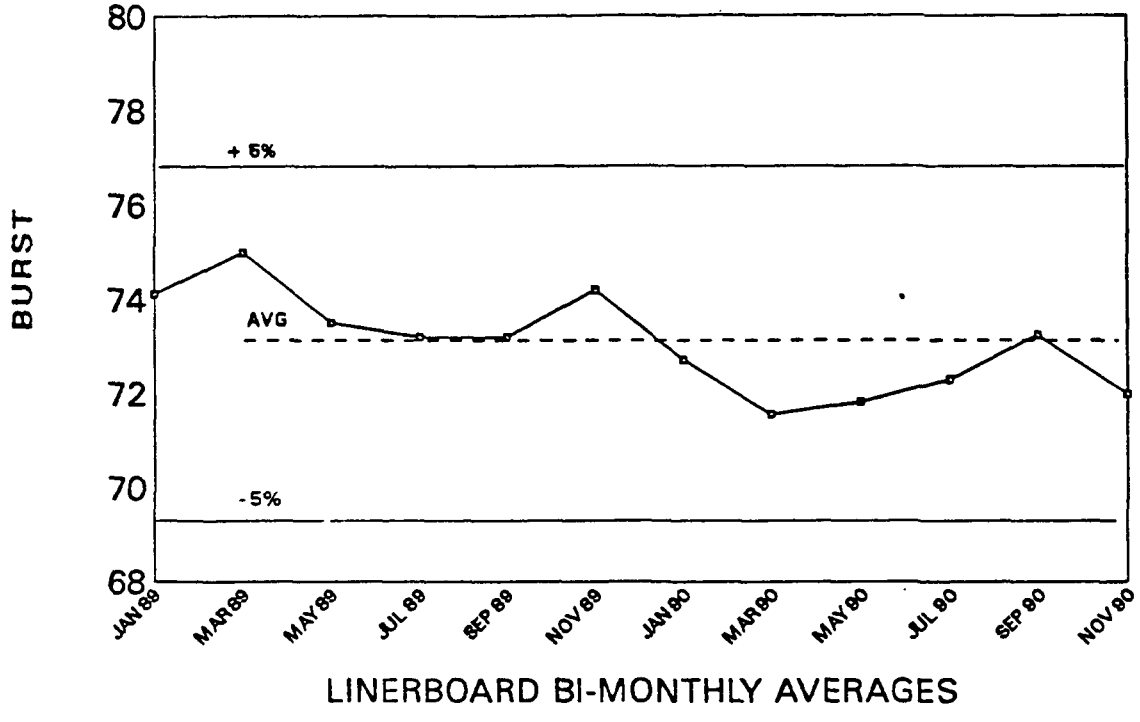


90 LB

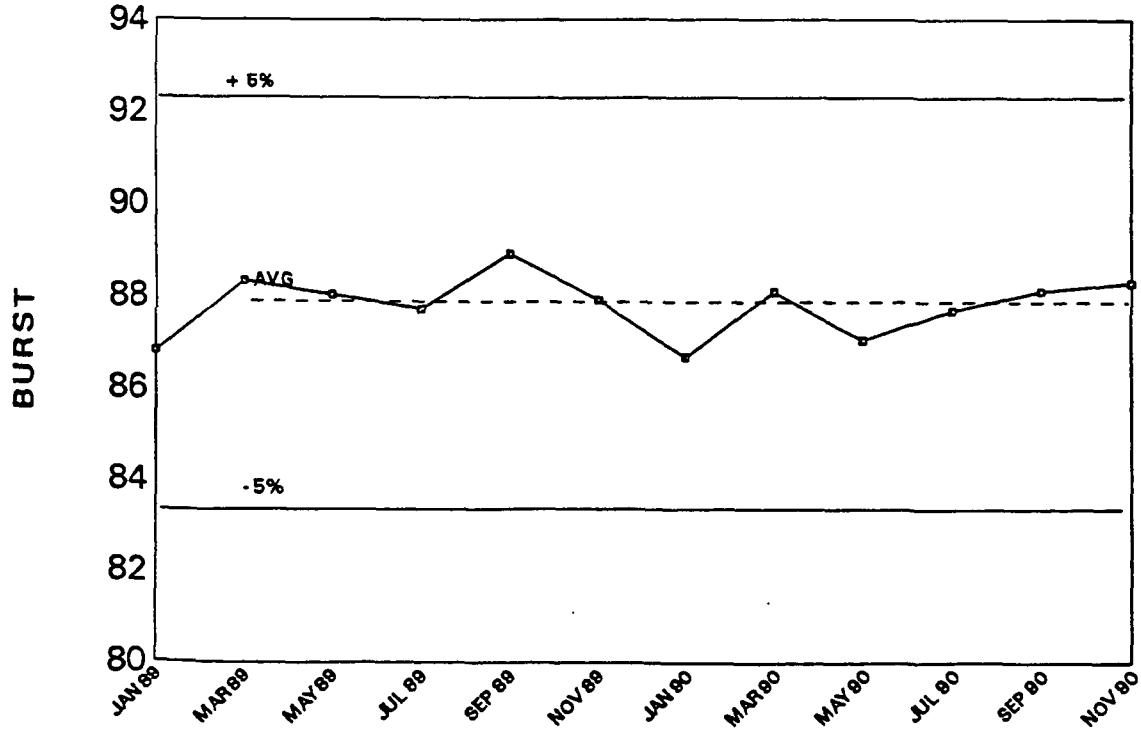


2 YEAR TREND PLOT FOR BURST

26 LB

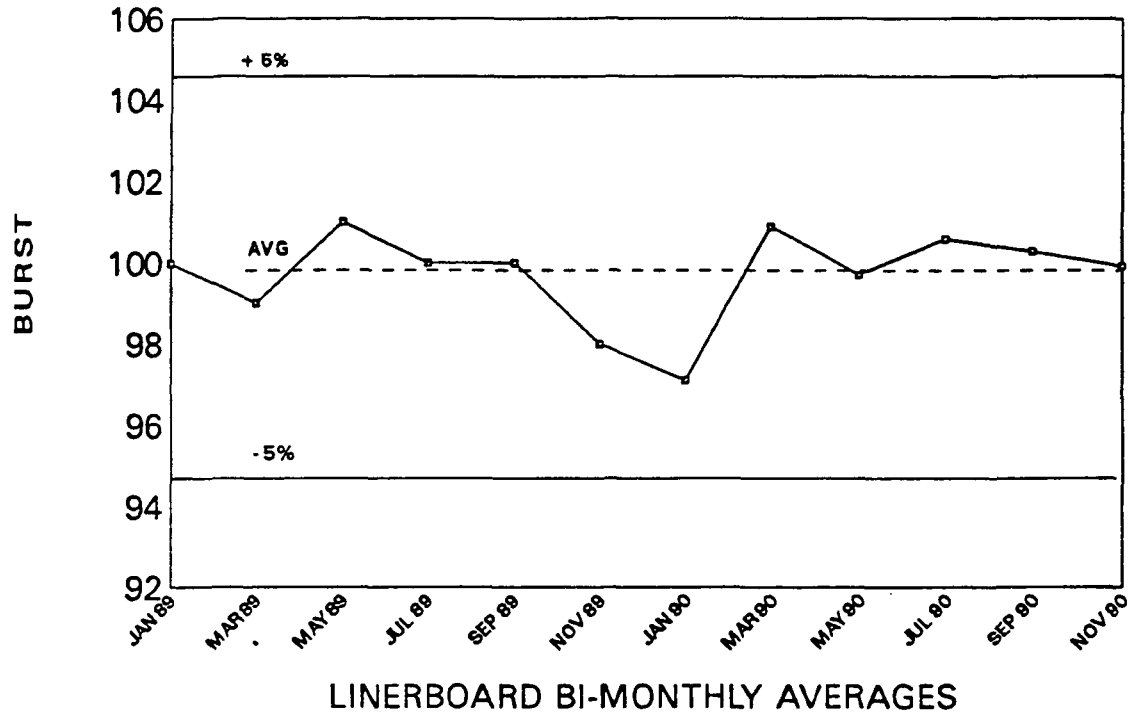


33 LB



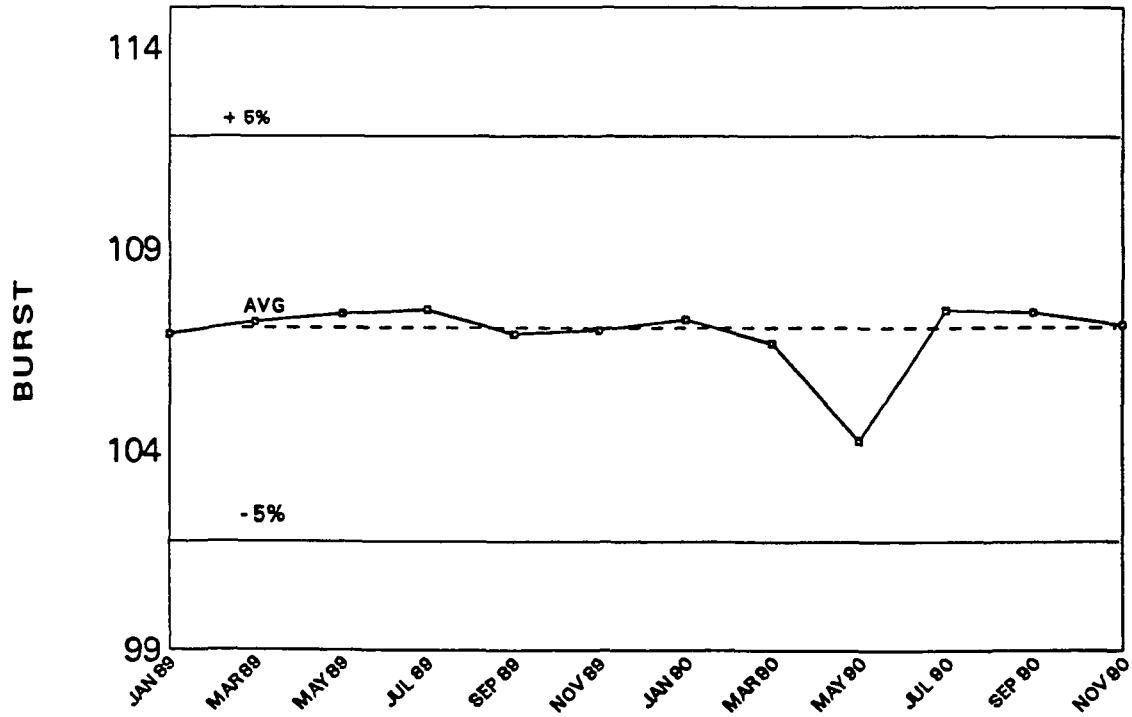
2 YEAR TREND PLOT FOR BURST

38 LB



LINERBOARD BI-MONTHLY AVERAGES

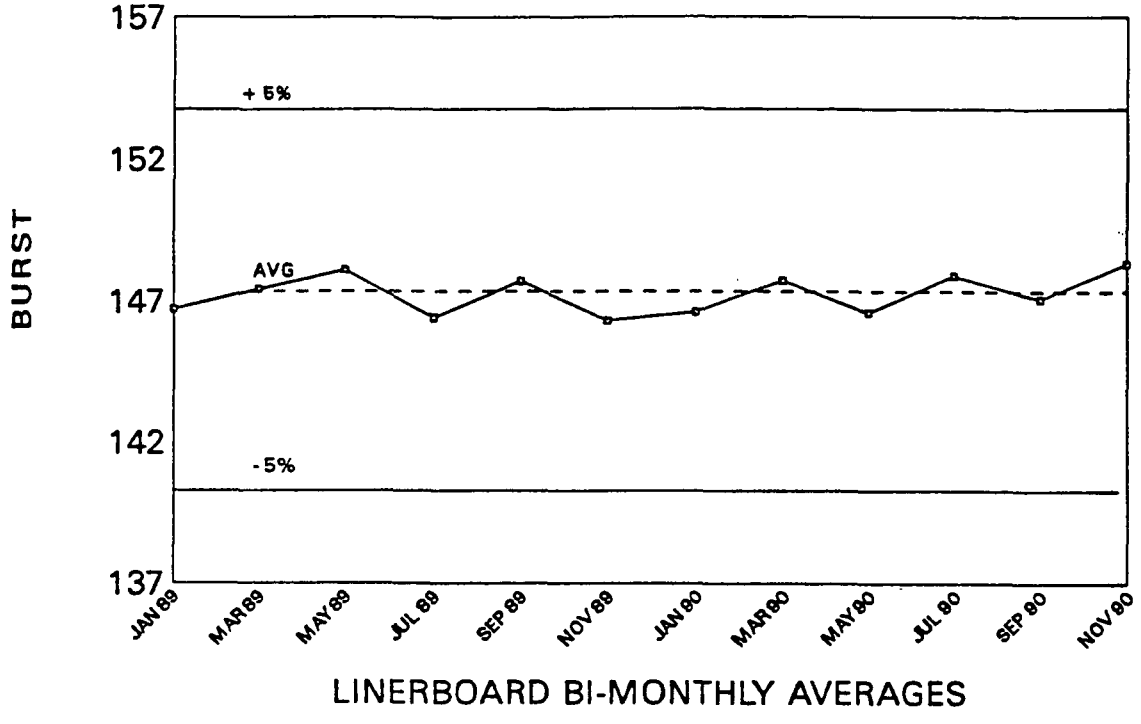
42 LB



LINERBOARD BI-MONTHLY AVERAGES

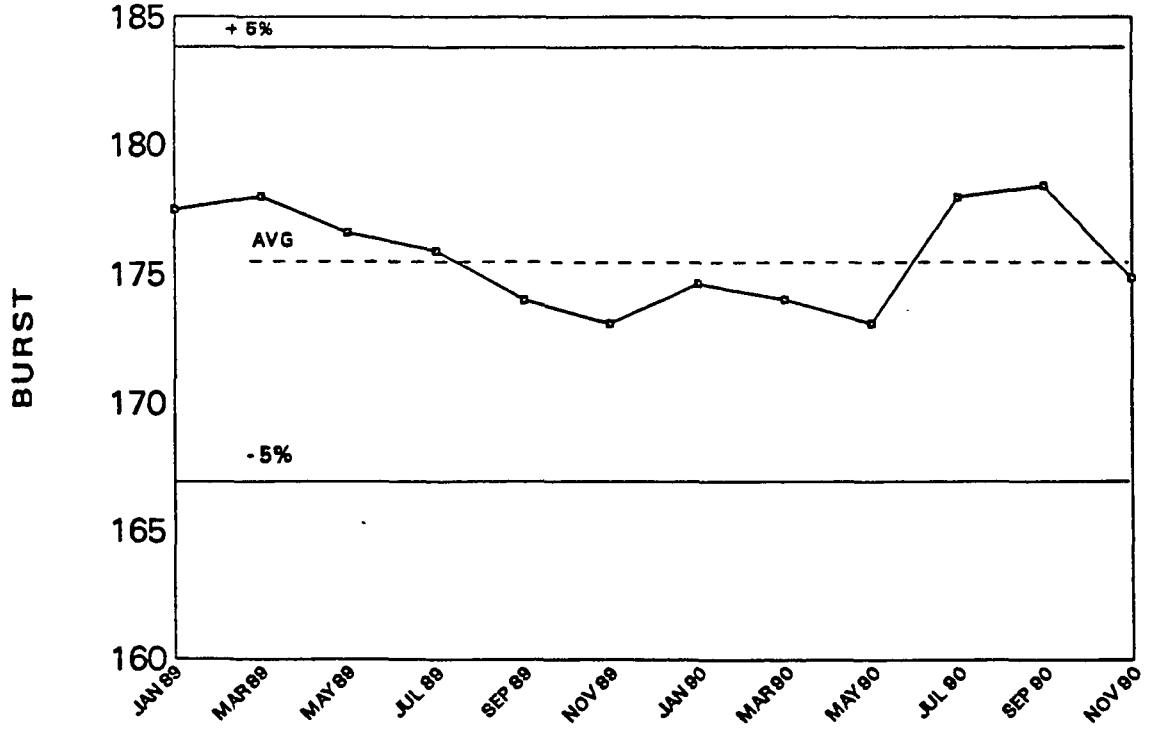
2 YEAR TREND PLOT FOR BURST

69 LB



LINERBOARD BI-MONTHLY AVERAGES

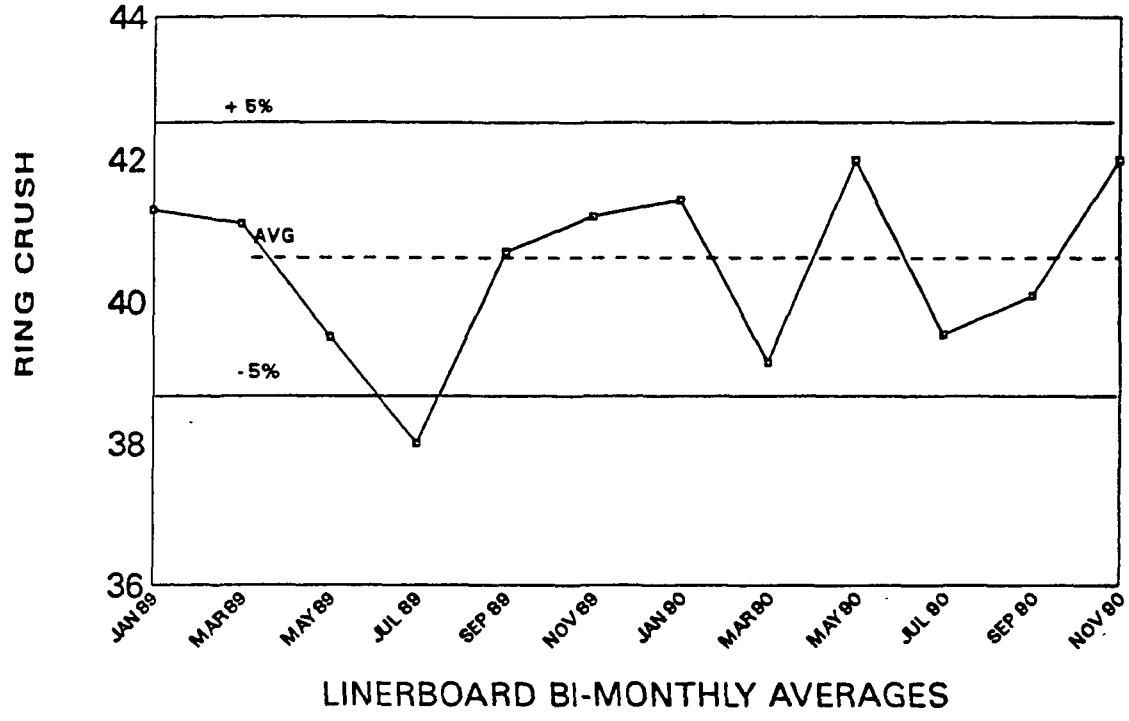
90 LB



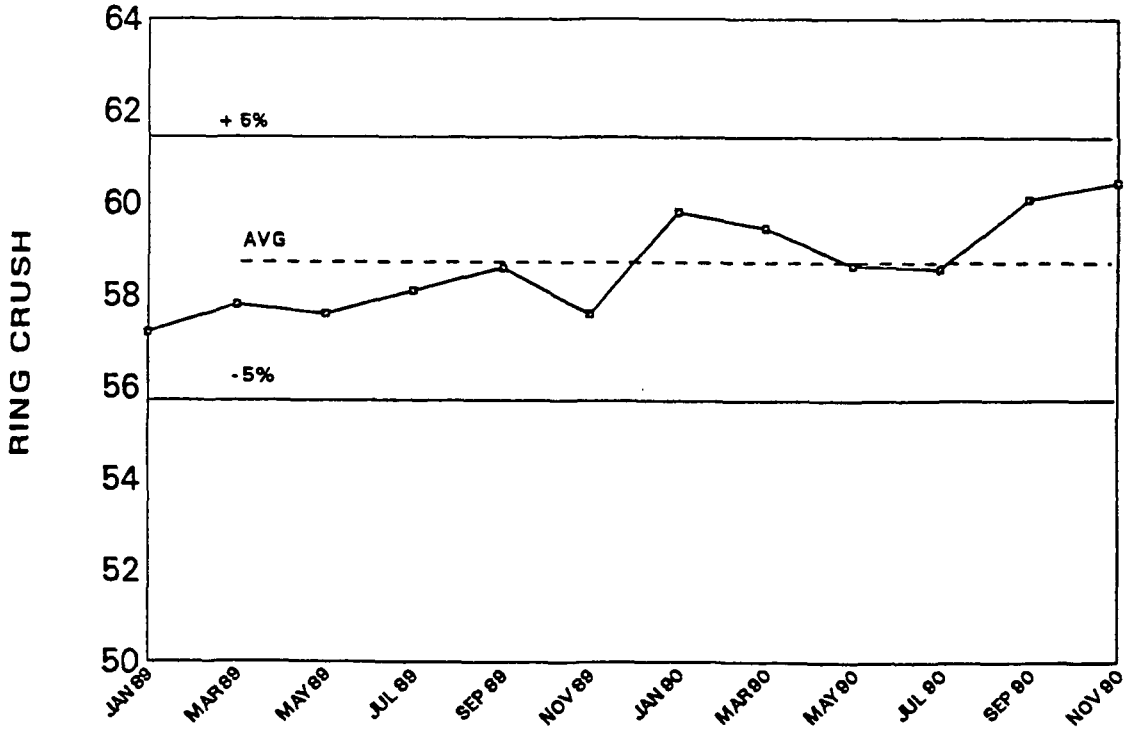
LINERBOARD BI-MONTHLY AVERAGES

2 YEAR TREND PLOT FOR RING CRUSH

26 LB

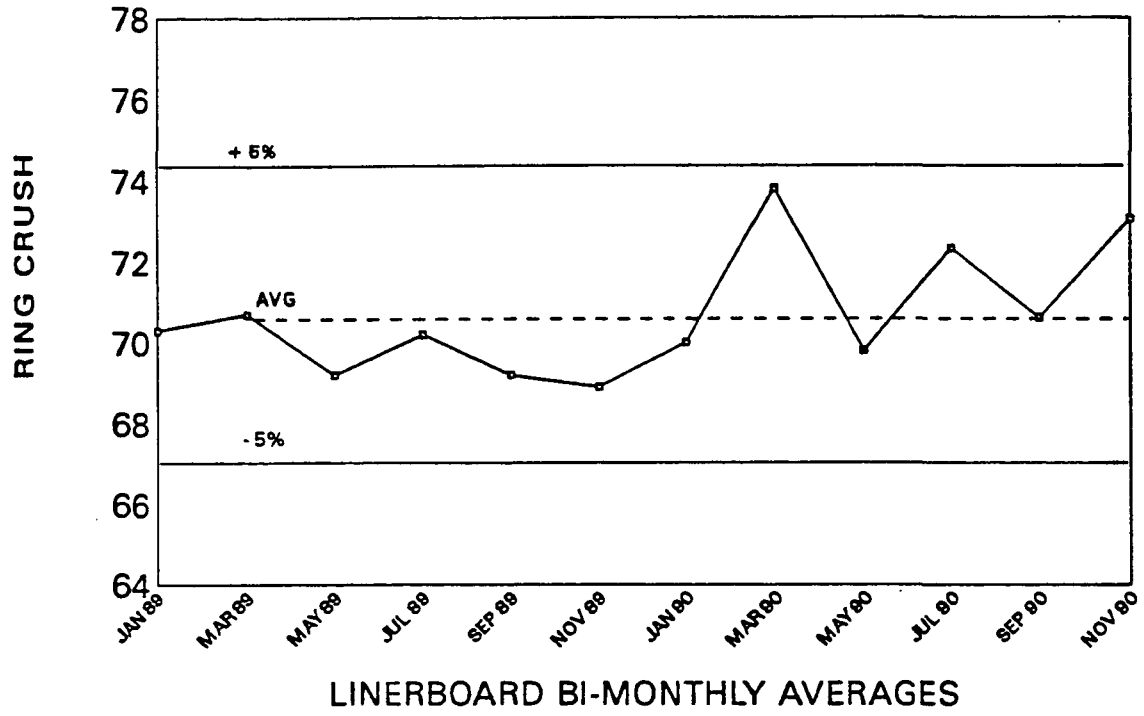


33 LB

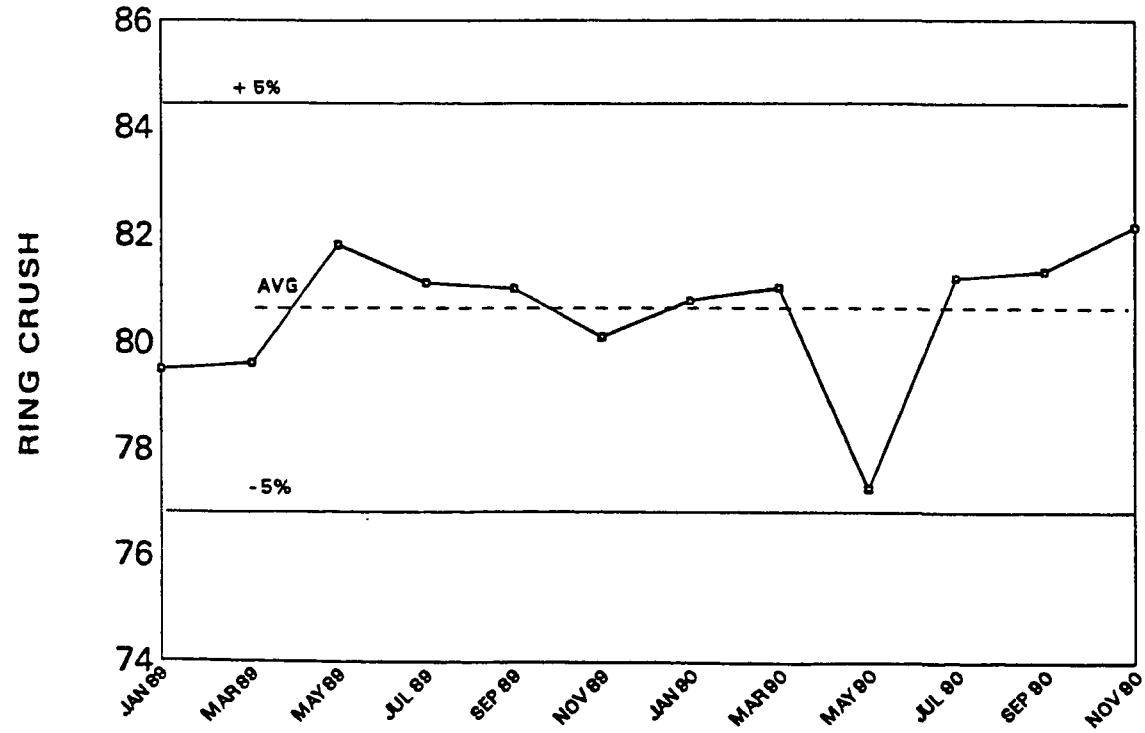


2 YEAR TREND PLOT FOR RING CRUSH

38 LB

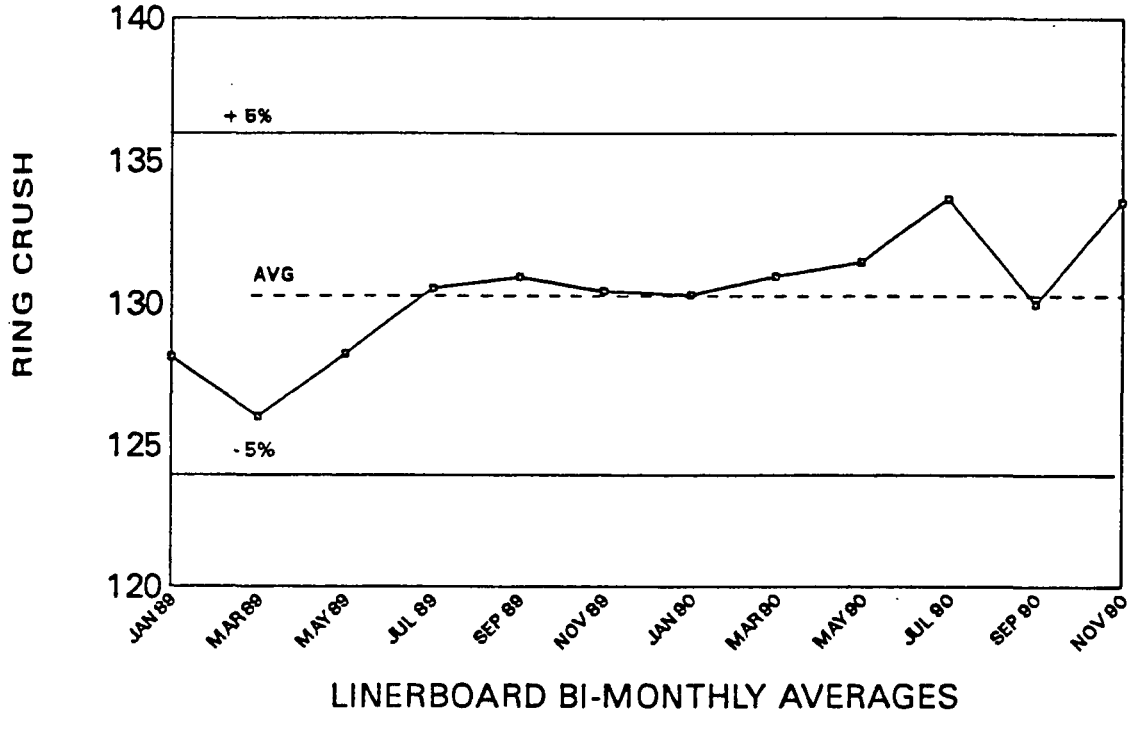


42 LB

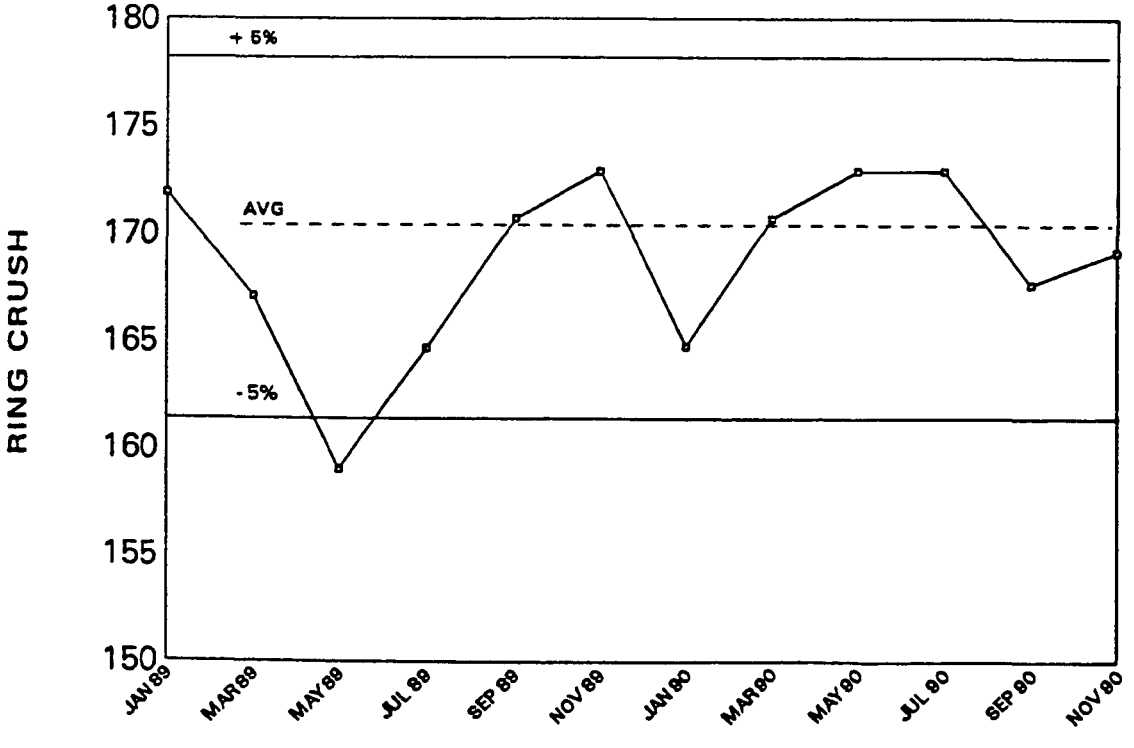


2 YEAR TREND PLOT FOR RING CRUSH

69 LB

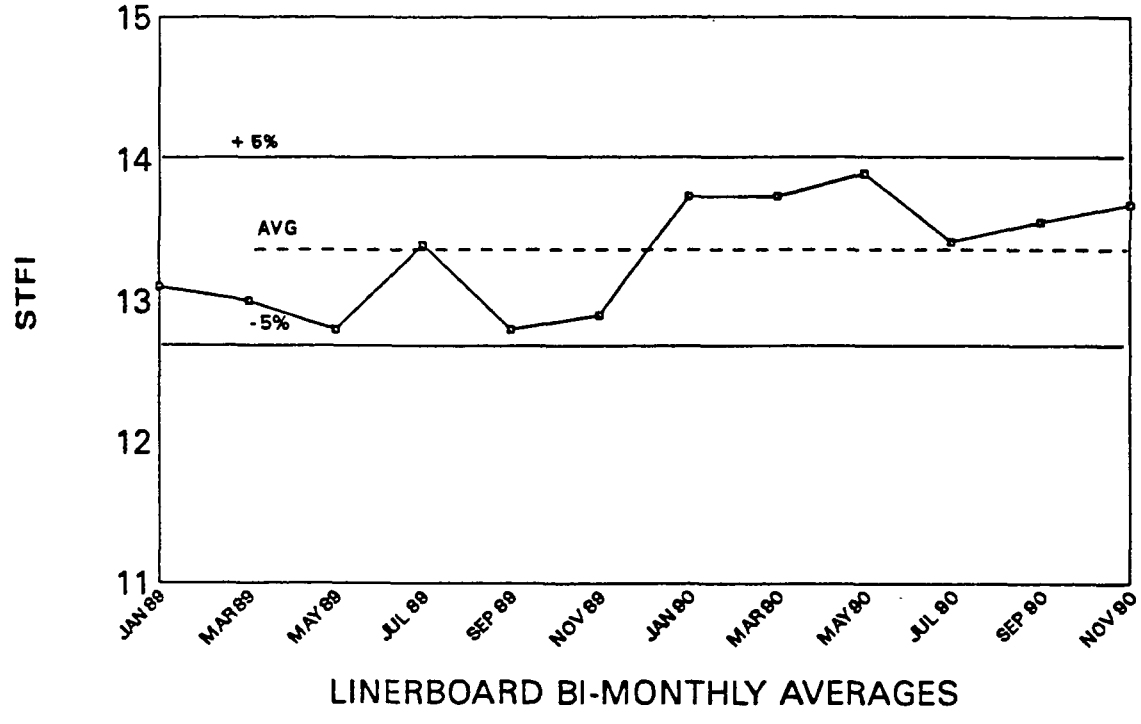


90 LB



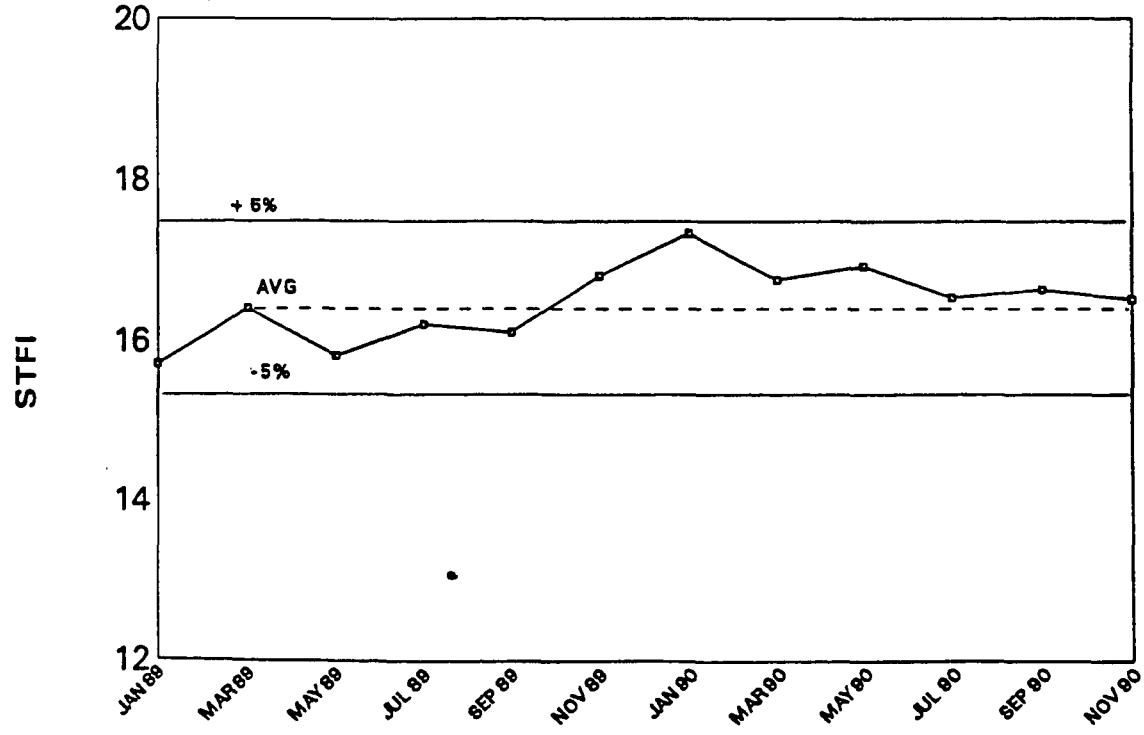
2 YEAR TREND PLOT FOR STFI

26 LB



LINERBOARD BI-MONTHLY AVERAGES

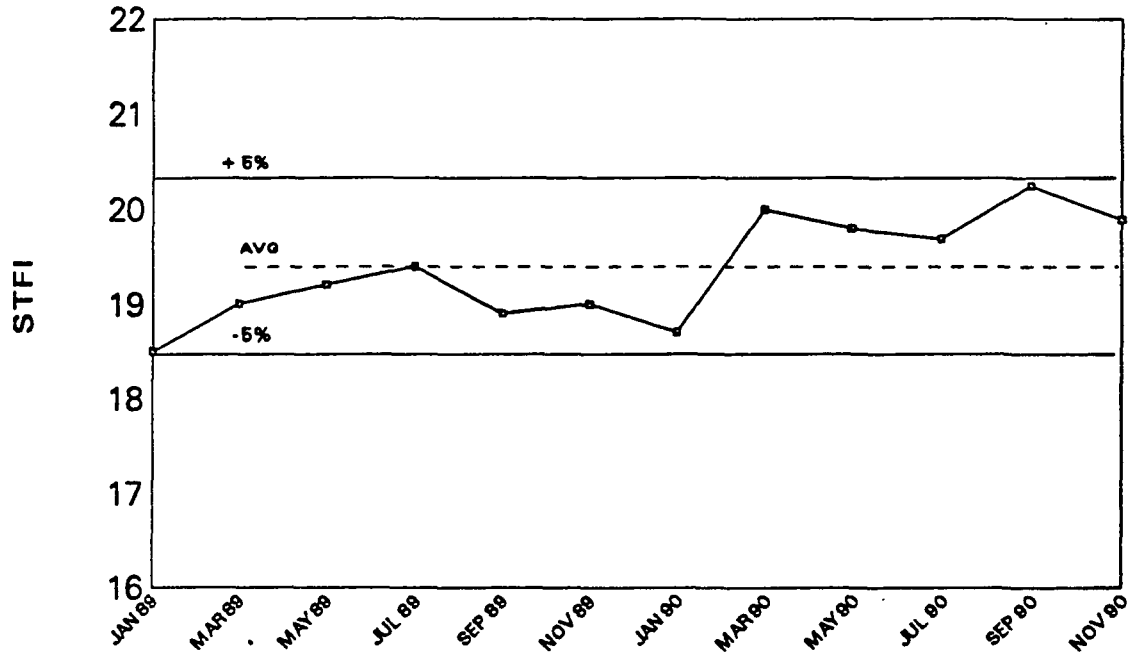
33 LB



LINERBOARD BI-MONTHLY AVERAGES

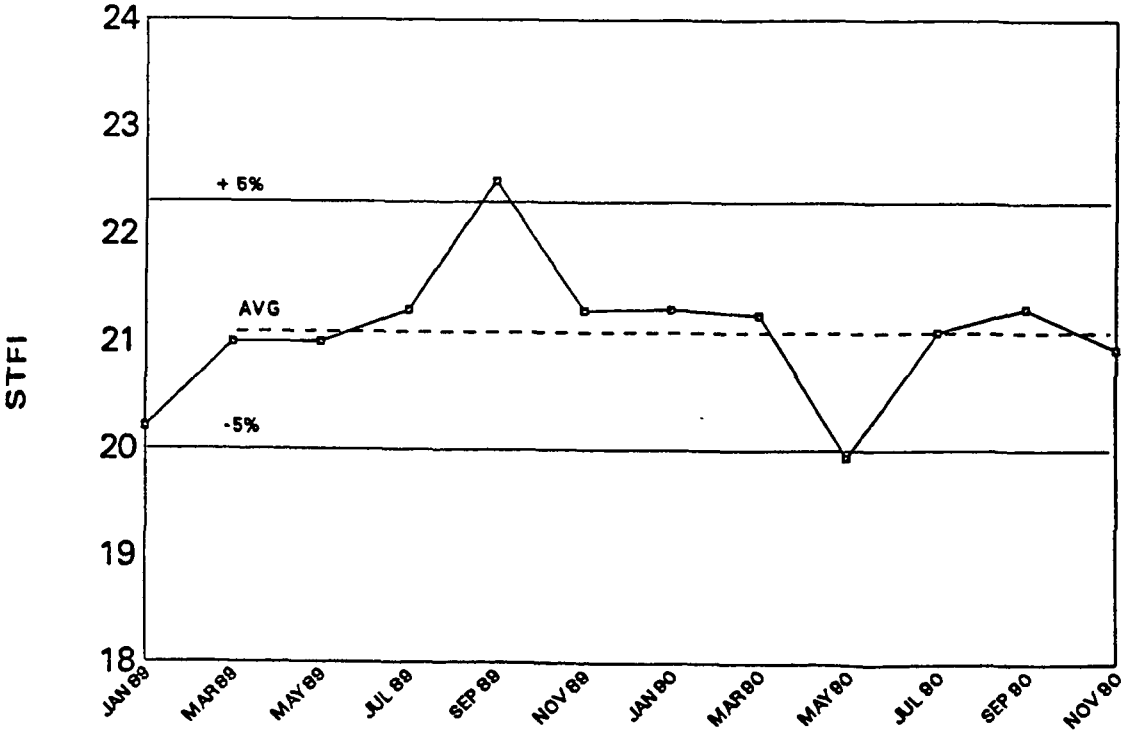
2 YEAR TREND PLOT FOR STFI

38 LB



LINERBOARD BI-MONTHLY AVERAGES

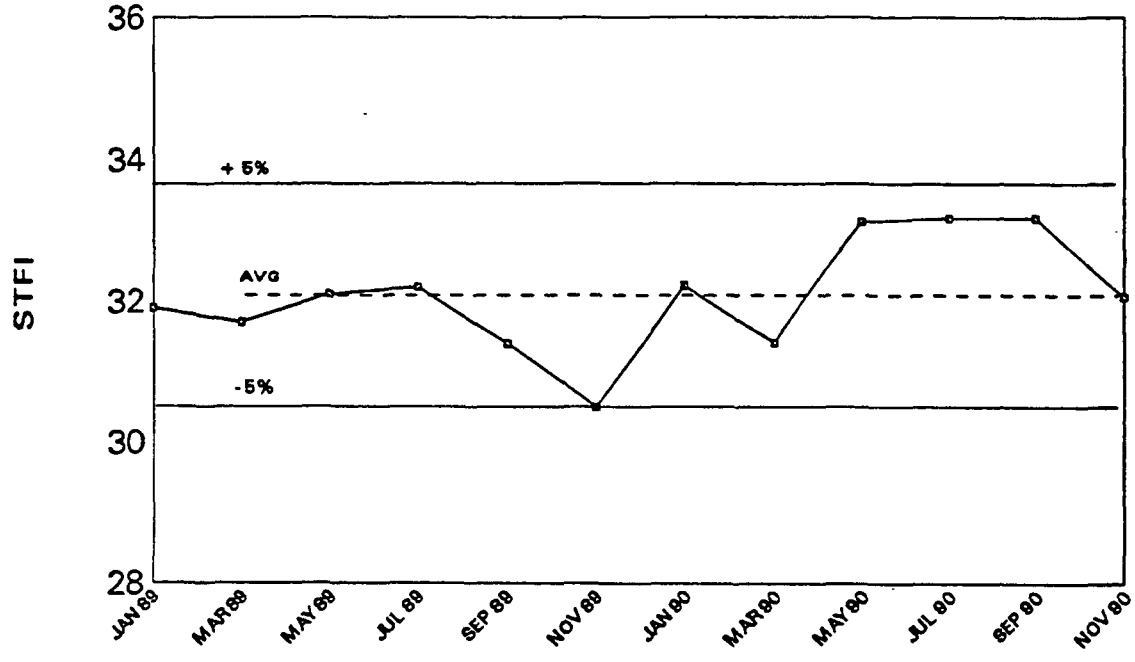
42 LB



LINERBOARD BI-MONTHLY AVERAGES

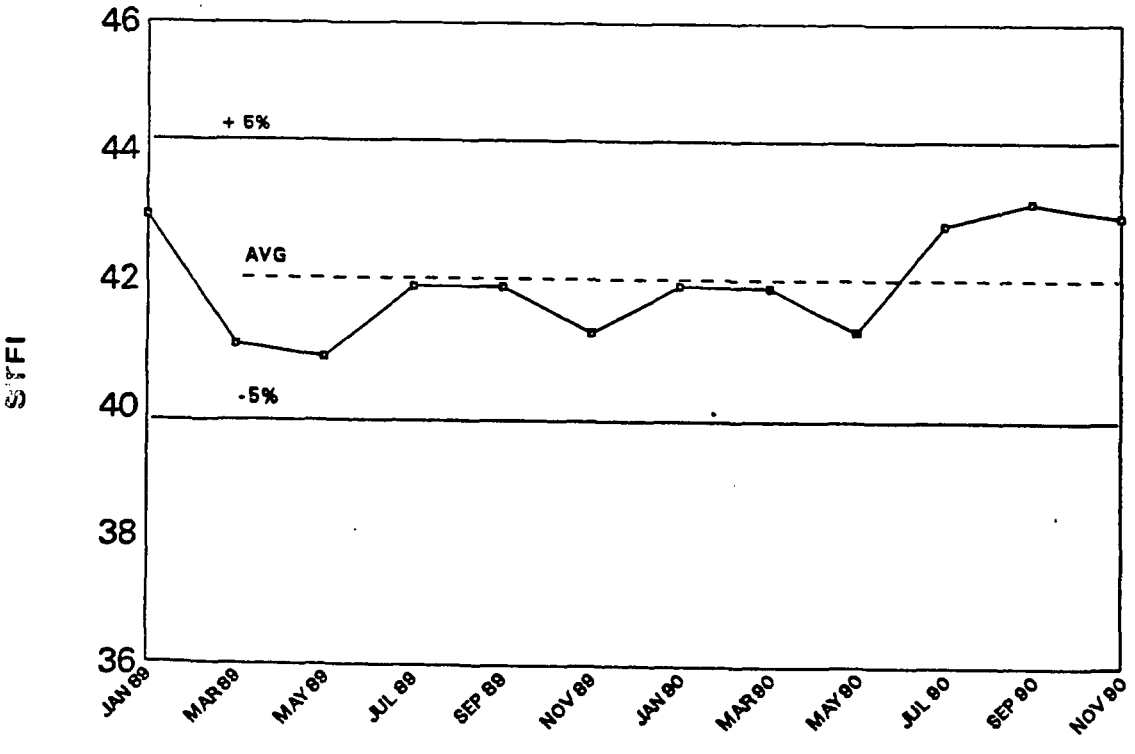
2 YEAR TREND PLOT FOR STFI

69 LB



LINERBOARD BI-MONTHLY AVERAGES

90 LB



LINERBOARD BI-MONTHLY AVERAGES

INTRODUCTION

The continuous base-line study (modified) is a compilation of bimonthly averages of mill test data obtained routinely on six major grades weights of linerboard manufactured in the member mills of C.K.P.G. Mill data are included for moisture content, basis weight, caliper, bursting strength, C.D. ring crush, and C.D. STFI tests made on the production of individual machines which produced at least 500 tons of one or more of the following six major grade weights during a given period: 26, 33, 38, 42, 69, and 90 lb. Participating mills are asked to report reel, moisture content, basis weight, and moisture content corresponding to the basis weight measurement. The latter two measurements are used to compute the adjusted basis weight corresponding to a moisture content of 7.8%. Only the reel moisture content and the adjusted basis weight are included in the report.

PRESENTATION OF DATA

For the six major grade weights of linerboard referred to earlier, data on conditioning and testing environments, mill test averages for moisture content, adjusted basis weight, caliper, bursting strength, C.D. ring crush, and C.D. STFI are compiled in the following tables.

Table Number	Description
I-II-III	Mill Test Averages on 26-lb Linerboard
IV-V-VI	Mill Test Averages on 33-lb Linerboard
VII-VIII-IX	Mill Test Averages on 38-lb Linerboard
X-XI-XII	Mill Test Averages on 42-lb Linerboard
XIII-XIV-XV	Mill Test Averages on 69-lb Linerboard
XVI-XVII-XVIII	Mill Test Averages on 90-lb Linerboard

Table I

Averages of Mill Quality Data for JULY–AUG. 1990 26 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	5.6	5.6	102.6	25.7	25.8	97.7	6.6	6.9	87.0
P1		6.0			26.9			7.6	
G2				26.0	26.3	98.8	7.2	7.6	94.9
W2	5.9	4.6	108.1	26.2	26.3	99.7	7.1	7.6	93.6
R1		4.6			26.4			7.5	
L1	5.5	5.5	100.8	26.0	25.9	98.9	7.6	7.9	100.2
J3	5.5	5.5	100.8	26.2	26.2	99.5	7.8	8.1	102.9
O1	5.2	5.1	95.3	26.2	26.2	99.5	7.3	7.2	96.3
E1	4.8	4.9	88.3	26.3	26.5	100.0	7.2	7.1	94.9
Y3	6.3	6.4	115.5	26.1	26.1	99.1	6.8	6.8	89.7
B1	7.0	6.8	128.3	25.8	26.0	98.0	7.7	7.8	101.5
C4		5.7			26.2			7.4	
N4		3.6			26.1			8.5	
E3		6.1			26.4			7.4	
O4	5.0	5.0	91.6	26.1	26.1	99.1	7.4	7.4	97.6
U4	4.4	4.6	80.6	26.2	26.3	99.7	8.2	8.0	108.1
T1	5.0	5.4	91.3	27.5	27.4	104.4		7.8	
C1	5.9	6.0	107.8	26.4	26.4	100.4	7.3	7.2	96.3
C2				26.8	26.7	101.8	7.5	7.6	98.9
W1	7.0	6.9	128.3	27.0	26.1	102.8	8.4	8.5	110.8
N3	4.9		89.8	26.5		100.7	7.2		94.9
CKPG	5.6	5.5	102.1	26.3	26.3	100.0	7.4	7.6	97.9

Notes A and B are given in the appendix.

Table I (Cont)

Averages of Mill Quality Data for JULY–AUG. 1990 26 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	74.2	74.9	101.2				15.8	14.9	119.4
P1		77.0			51.0				
G2	82.8	80.9	113.0						
W2	66.0	74.3	90.1	36.0	35.5	87.8			
R1		70.0			44.5			15.0	
L1	71.2	70.0	97.2	37.0	35.3	90.2			
J3	74.0	72.2	101.0	44.0	41.0	107.3			
O1	71.5	70.8	97.6	28.0	28.8	68.3	13.1	12.7	99.0
E1	65.0	65.8	88.7	46.0	43.2	112.2			
Y3	71.0	74.2	96.9				13.9	14.2	105.0
B1	68.0	68.0	92.8				12.1	11.4	91.4
C4		76.3						12.4	
N4		77.0							
E3		71.3			34.4				
O4	73.0	73.0	99.6	33.0	33.8	80.5		12.8	
U4	66.0	71.3	90.1	46.0	46.3	112.2			
T1	72.8	80.7	99.4	46.3	49.8	113.0			
C1	70.3	69.7	95.9						
C2	80.0	77.2	109.2	51.0	48.5	124.4			
W1	70.0	71.2	95.5				12.5	12.7	94.4
N3	81.0		110.5	28.0		68.3	13.1		99.0
CKPG	72.3	73.3	98.7	39.5	41.0	96.4	13.4	13.2	101.4

Note B is given in the appendix.

Table II

Averages of Mill Quality Data for SEPT–OCT 1990 26 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	5.6	5.6	102.9	25.8	25.8	98.0	6.7	6.8	88.8
P1		6.0			26.9			7.6	
G2				26.0	26.4	98.8	7.3	7.7	96.8
W2		5.9			26.2			7.4	
R1	4.7	4.6	86.4	26.7	26.4	101.3	7.8	7.5	103.4
L1	5.5	5.5	101.1	25.9	25.9	98.5	7.6	7.7	100.7
J3	5.6	5.5	102.9	26.3	26.2	99.9	8.2	8.0	108.7
O1	5.0	5.1	91.9	26.2	26.2	99.5	7.4	7.2	98.1
E1		4.8			26.5			7.1	
Y3	6.1	6.3	112.1	26.1	26.1	99.1	6.7	6.6	88.8
B1	6.6	6.9	121.3	26.1	26.0	99.1	8.0	7.8	106.0
C4		5.7			26.2			7.4	
N4		3.6			26.1			8.5	
E3		6.1			26.4			7.4	
O4	5.0	4.2	91.9	26.1	26.1	99.1	7.5	7.4	99.4
U4	4.6	4.6	84.5	26.4	26.3	100.2	7.9	8.1	104.7
T1	4.8	5.3	88.8	27.0	27.4	102.6	7.5	7.8	99.4
C1	5.9	6.0	109.0	26.3	26.4	100.0	7.4	7.2	98.5
C2				26.7	26.7	101.4	7.4	7.6	98.1
W1	7.0	6.9	128.6	26.1	26.3	99.1	8.4	8.5	111.3
J2		4.9			26.3			7.2	
N3	4.7		86.4	26.6		101.0	7.3		96.8
CKPG	5.5	5.4	100.6	26.3	26.3	99.8	7.5	7.5	100.0

Notes A and B are given in the appendix.

Table II (Cont)

Averages of Mill Quality Data for SEPT–OCT 1990 26 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	75.3	74.4	103.0				14.0	14.9	118.6
P1		77.0			51.0				
G2	73.9	80.5	101.1						
W2		71.5			36.0				
R1	72.0	70.0	98.5	47.0	44.6	116.2	17.0	15.0	144.0
L1	70.9	70.4	97.0	40.0	36.7	98.9			
J3	73.0	72.3	99.9	42.0	42.2	103.8			
O1	68.0	70.9	93.0	29.0	28.6	71.7	13.1	12.8	110.9
E1		65.7			44.6				
Y3	76.0	74.2	104.0				14.4	14.2	121.9
B1	65.0	67.8	88.9				11.7	11.6	99.1
C4		76.3						12.4	
N4		77.0							
E3		71.3			34.4				
O4	78.0	73.5	106.7	32.0	33.8	79.1		12.8	
U4	68.0	70.2	93.0	47.0	46.2	116.2			
T1	82.7	78.8	113.1	48.7	49.0	120.5			
C1	71.9	69.8	98.4						
C2	79.0	77.2	108.1	49.0	49.3	121.1			
W1	72.0	71.2	98.5				13.1	12.7	110.9
J2		75.0			29.5			13.1	
N3	73.0		99.9	26.0		64.3	11.6		98.2
CKPG	73.2	73.1	100.2	40.1	40.4	99.1	13.6	11.8	114.8

Note B is given in the appendix.

Table III

Averages of Mill Quality Data for NOV–DEC, 1990 26 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	5.5	5.6	100.8	25.7	25.7	94.8	6.7	6.8	89.1
P1		6.0			26.9			7.5	
G2				26.1	26.4	96.2	7.2	7.6	95.8
W2	6.1	5.9	111.8	26.4	26.2	97.2	7.4	7.3	98.4
R1	5.1	4.6	93.5	26.8	44.1	98.6	7.5	7.6	99.8
L1	5.5	5.5	100.8	26.1	25.9	96.3	7.5	7.6	99.8
J3	5.5	5.6	100.8	26.2	26.2	96.5	8.2	8.0	109.1
O1	4.8	5.1	88.0	26.4	26.2	97.2	7.4	7.3	98.4
E1		4.8			26.5			7.1	
Y3		6.3			26.1			6.6	
B1	7.1	6.9	130.2	26.1	26.0	96.1	7.9	7.8	105.1
C4		5.7			26.2			7.4	
N4		3.6			26.1			8.5	
E3		6.1			26.4			7.4	
O4	5.0	5.1	91.7	26.1	26.1	96.1	7.1	7.4	94.4
U4		4.6			26.3			8.1	
T1	4.6	5.2	84.5	28.2	27.5	104.0		7.7	
C1	5.9	6.0	108.3	26.7	26.4	98.4	7.4	7.3	97.9
C2				26.8	26.7	98.8	7.6	7.6	101.1
W1	7.0	7.0	128.3	26.1	26.2	96.1	8.3	8.5	110.4
J2		4.9			26.3			7.2	
N3	4.7	4.7	86.2	26.7	26.6	98.3	7.4	7.3	98.4
CKPG	5.6	5.5	102.1	26.5	27.1	97.5	7.5	7.5	99.8

Notes A and B are given in the appendix.

Table III (Cont)

Averages of Mill Quality Data for NOV–DEC, 1990 26 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	75.1	74.3	103.0				14.6	14.9	138.7
P1									
G2	73.1	78.3	100.2						
W2	68.0	70.7	93.3	39.0	35.7	100.5			
R1	70.0	70.6	96.0	46.0	45.4	118.6	16.0	15.6	152.1
L1	69.4	71.4	95.2	42.0	38.7	108.3			
J3	72.0	72.2	98.7	41.0	42.8	105.7			
O1	69.0	70.6	94.6		28.6			12.8	
E1		65.6			44.8				
Y3		75.0						14.5	
B1	70.0	67.0	96.0				12.4	11.7	117.8
C4		76.3						12.4	
N4		77.0							
E3		71.3			34.4				
O4	79.0	73.7	108.3	39.0	33.8	100.5			
U4		70.2			46.3				
T1	78.4	79.7	107.5	48.4	49.5	124.8			
C1	66.8	70.3	91.6						
C2	73.0	78.0	100.1	48.0	48.8	123.7			
W1	70.0	71.3	96.0				13.0	12.8	123.5
J2		75.0			29.5			13.1	
N3	74.0	73.0	101.5	32.5	26.0	83.8	12.4	11.6	117.8
CKPG	72.0	72.9	98.7	42.0	38.8	108.2	13.7	10.5	130.0

Note B is given in the appendix.

Table IV

Averages of Mill Quality Data for JULY–AUG, 1990 33 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	6.0	6.0	105.0	32.6	32.6	99.5	8.5	8.7	89.3
P1	6.1	6.3	106.8	33.9	33.9	103.4	9.3	9.6	97.7
G2					33.0			9.5	
W2	6.0	5.1	105.0	33.4	16.5	102.0	9.3	9.7	97.7
R1		5.1			33.3			9.3	
L1	5.5	5.4	96.3	32.8	33.1	100.0	9.6	9.9	100.8
J3	5.7	5.6	99.8	33.2	33.2	101.3	9.9	10.1	104.0
O1	5.2	5.4	91.0	33.2	33.1	101.3	8.8	8.9	92.4
E1	5.2	5.3	91.5	33.3	33.3	101.5	8.8	8.9	92.8
Y3	6.2	6.3	108.5	33.1	33.1	101.0	8.7	8.6	91.4
B1		6.6			33.1			10.1	
C4	6.2	6.0	108.5	33.2	33.2	101.3	9.0	9.3	94.5
N4	4.3	4.2	75.3	33.2	33.1	101.3	10.9	10.9	114.5
E3		6.0			33.7			9.7	
O4		5.0			33.3			9.5	
U4	4.8	5.0	84.0	33.1	33.4	101.1	9.3	9.7	97.7
T1	5.8	6.0	102.2	33.5	33.6	102.3	9.8	9.8	102.7
C1	6.0	6.0	104.3	33.5	33.5	102.3	9.1	9.2	95.9
C2		6.3		33.7	33.9	102.9	9.4	9.7	98.7
W1	7.0	7.0	122.5	33.1	33.1	101.0	9.1	9.1	95.6
J2	4.9	4.9	85.8	33.1	33.1	101.0	9.8	9.9	102.9
G1	5.7	5.3	98.9	33.8	33.3	103.0	9.8	9.5	102.9
J1	6.7	6.7	116.4	33.5	33.4	102.3	9.9	10.0	104.0
Q2		4.7			34.0			10.2	
V2	6.5	6.5	113.8	33.3	33.2	101.6	9.2	9.4	96.6
D3	6.0	6.5	105.7	33.4	33.3	101.9	9.0	9.5	94.7
N3	5.6	5.4	98.0	33.2	33.5	101.3	9.5	9.1	99.8
Q3	5.3	5.3	92.8	33.9	34.0	103.4	9.8	9.8	102.9
W3	5.0	5.0	87.5	33.0	32.6	100.6	9.5	9.1	99.8
P4				34.2	34.4	104.3	9.2	9.4	96.6
E2	6.8	6.9	119.0	33.1	33.1	101.0	9.3	9.2	97.7
CKPG	5.8	5.7	100.8	33.3	32.8	101.7	9.4	9.5	98.5

Notes A and B are given in the appendix.

Table IV (Cont)

Averages of Mill Quality Data for JULY–AUG, 1990 33 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	90.5	90.0	102.7				17.9	17.8	109.0
P1	109.3	102.9	124.1	72.0	74.4	124.2			
G2		96.3							
W2	86.0	87.5	97.6	51.0	52.7	88.0			
R1		88.2			64.8			18.3	
L1	89.8	93.0	101.9	59.0	58.3	101.8			
J3	86.0	85.3	97.6	63.0	59.7	108.7			
O1	83.0	86.5	94.2	47.0	48.4	81.1	16.2	16.0	98.6
E1	78.0	80.0	88.5	66.0	68.2	113.9			
Y3	92.0	90.2	104.4				17.5	17.0	106.6
B1		86.0						13.5	
C4	89.0	91.3	101.0				16.4	15.6	99.9
N4	94.0	89.8	106.7					14.1	
E3		95.2			47.6				
O4		86.3			49.0			18.0	
U4	78.0	81.0	88.5	64.0	61.8	110.4			
T1	84.4	87.8	95.8	66.8	67.0	115.2			
C1	88.0	83.4	99.9	66.1	68.0	114.0			
C2	93.0	92.8	105.6	65.0	64.3	112.1			
W1	81.0	84.2	91.9				16.9	16.8	102.9
J2	83.0	84.0	94.2	45.0	45.7	77.6		15.0	
G1	85.0	86.3	96.5	51.0	59.9	88.0			
J1	88.6	87.2	100.5				16.9	17.7	103.0
Q2		86.8			57.0			18.6	
V2	87.0	84.8	98.8	65.0	59.1	112.1		15.8	
D3	84.5	85.9	95.9				14.8	15.7	89.9
N3	90.0	87.3	102.2	42.5	46.8	73.3	14.4	15.7	87.7
Q3	84.0	80.8	95.4	57.0	51.2	98.3			
W3	96.6	95.0	109.7	57.0	55.5	98.3			
P4	92.2	92.5	104.7						
E2	79.0	82.5	89.7				17.8	17.1	108.4
CKPG	87.7	88.1	99.5	58.6	58.0	101.1	16.5	16.4	100.7

Note B is given in the appendix.

Table V

Averages of Mill Quality Data for SEPT–OCT, 1990 33 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	6.1	6.0	106.3	32.7	32.7	98.1	8.4	8.7	88.5
P1	6.1	6.3	106.3	34.4	33.8	103.3	9.2	9.6	96.9
G2					33.0			9.5	
W2	6.0	5.9	104.5	33.6	33.3	100.9	9.4	9.6	99.0
R1	5.0	5.1	87.1	33.4	33.3	100.1	9.0	9.2	94.8
L1	5.5	5.4	95.8	32.8	33.0	98.3	9.9	9.8	104.3
J3	5.7	5.7	99.3	33.2	33.2	99.6	10.0	10.1	105.3
O1	5.3	5.3	92.3	33.2	33.2	99.6	8.9	8.9	93.7
E1		5.3			33.3			8.9	
Y3	6.2	6.3	108.0	33.1	33.1	99.3	8.9	8.5	93.7
B1	6.1	6.5	106.3	33.1	33.1	99.3	9.8	10.1	103.2
C4	6.3	6.0	109.7	33.1	33.2	99.3	9.2	9.3	96.9
N4	4.1	4.2	71.4	33.1	33.1	99.2	10.4	10.9	109.5
E3		6.0			33.7			9.7	
O4	5.0	5.0	87.1	33.0	33.1	99.0	9.6	9.5	101.1
U4	5.0	5.0	87.1	33.1	33.4	99.2	9.8	9.6	103.2
T1	5.9	6.0	103.1	33.5	33.6	100.4	9.6	9.8	101.3
C1	6.0	6.0	103.7	33.5	33.5	100.4	9.1	9.2	96.0
C2		6.3		33.7	33.8	101.2	9.4	9.6	99.0
W1	7.0	7.0	121.9	33.1	33.1	99.3	9.2	9.1	96.9
J2	5.0	4.9	87.1	33.4	33.1	100.2	10.1	9.9	106.4
G1		5.4			33.4			9.6	
J1	6.7	6.6	116.7	33.1	33.4	99.2	9.9	9.9	104.3
Q2		4.8			33.9			10.1	
V2	6.5	6.5	113.2	33.2	33.2	99.7	9.5	9.4	100.0
D3	6.0	6.4	104.2	33.2	33.3	99.5	9.0	9.4	95.2
N3	5.2	5.4	90.6	33.4	33.4	100.2	9.5	9.2	100.0
Q3		5.3		33.9	34.0	101.6	10.0	9.9	105.3
W3	5.0	5.0	87.1	32.8	32.7	98.3	9.2	9.2	96.9
P4				34.5	34.5	103.5	9.3	9.1	97.9
E2		6.8			33.1			9.3	
CKPG	5.7	5.7	99.5	33.3	33.3	100.0	9.5	9.5	99.6

Notes A and B are given in the appendix.

Table V (Cont)

Averages of Mill Quality Data for SEPT-OCT, 1990 33 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	90.7	89.8	103.1				16.8	17.7	101.5
P1	94.7	104.2	107.6	76.2	74.4	130.8			
G2		96.3							
W2	83.0	86.2	94.3	51.0	52.8	87.5			
R1	88.0	88.4	100.0	66.0	65.2	113.3	20.0	18.4	120.8
L1	90.3	92.6	102.6	67.0	59.7	115.0			
J3	86.0	85.7	97.7	63.0	60.5	108.1			
O1	83.5	85.9	94.9	50.0	48.2	85.8	16.6	16.1	100.2
E1		79.7			68.7				
Y3	90.0	90.8	102.3				16.7	17.5	100.8
B1	85.0	86.5	96.6				15.4	14.1	93.0
C4	95.0	91.0	107.9				17.8	15.8	107.5
N4	90.0	90.2	102.3						
E3		95.2			47.6				
O4	96.0	86.0	109.1	45.0	50.5	77.2			
U4	79.0	80.2	89.8	65.0	62.2	111.6			
T1	89.4	86.5	101.5	67.2	67.0	115.3			
C1	86.4	83.8	98.1	70.3	67.3	120.7			
C2	95.0	92.5	107.9	66.0	65.0	113.3			
W1	81.0	83.5	92.0				16.9	16.8	102.1
J2	84.0	84.3	95.4	45.0	45.5	77.2		15.1	
G1		86.0			58.1				
J1	85.3	87.5	96.9				16.4	17.7	99.1
Q2		87.3			57.0			18.5	
V2	84.0	85.2	95.4	61.6	60.3	105.7		15.6	
D3	81.8	86.1	92.9				14.7	15.6	88.9
N3	85.0	87.8	96.6	47.3	46.1	81.2	15.0	15.5	90.6
Q3	87.0	80.7	98.8	58.0	53.2	99.6			
W3	97.2	95.5	110.4	63.0	56.0	108.1			
P4	95.3	93.0	108.3						
E2		80.0						17.6	
CKPG	88.1	88.0	100.1	60.1	58.3	103.2	16.6	16.6	100.4

Note B is given in the appendix.

Table VI

Averages of Mill Quality Data for NOV–DEC, 1990 33 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	6.1	6.0	106.0	32.7	32.7	98.0	8.5	8.6	89.7
P1	5.8	6.2	100.8	34.0	33.9	102.0	9.2	9.5	97.1
G2				33.0	33.0	99.0	9.9	9.5	104.5
W2	6.1	5.9	106.0	33.7	33.4	101.1	9.4	9.6	99.2
R1	5.3	5.1	92.1	33.4	33.3	100.1	9.9	9.2	104.5
L1	5.6	5.5	97.3	32.9	32.9	98.6	9.9	9.7	104.5
J3	5.8	5.7	100.8	33.0	33.2	99.0	10.1	10.0	106.6
O1		5.4			33.2			8.8	
E1		5.3			33.3			8.9	
Y3	6.5	6.3	112.9	33.1	33.1	99.3	8.7	8.5	91.8
B1	6.4	6.4	111.2	33.1	33.1	99.3	10.1	10.0	106.6
C4		6.1			33.2			9.3	
N4	4.2	4.2	73.0	31.7	33.1	95.0	10.9	10.8	115.0
E3		6.0			33.7			9.7	
O4	4.9	5.4	85.1	33.1	33.1	99.3	9.4	9.5	99.2
U4		5.0			33.4			9.7	
T1	5.9	6.0	102.7	33.5	33.5	100.4	9.6	9.7	101.7
C1	5.9	6.0	102.9	34.0	33.5	102.0	8.4	9.2	88.6
C2		6.3		33.8	33.8	101.3	9.7	9.6	102.4
W1	7.1	7.0	123.4	33.1	33.1	99.3	9.1	9.1	96.0
J2	4.9	5.0	85.1	33.1	33.2	99.3	9.3	9.9	98.1
G1		5.4			33.4			9.6	
J1	6.7	6.7	115.6	33.1	33.4	99.3	9.9	9.9	104.5
Q2		4.9						10.2	
V2	6.4	6.5	111.2	33.5	33.9	100.5	9.3	9.4	98.1
D3	6.1	6.3	105.3	33.3	33.2	99.8	9.2	9.1	97.5
N3	5.1	5.5	88.6	33.6	33.3	100.8	9.2	9.3	97.1
Q3		5.3		33.9	33.4	101.5	9.9	9.9	104.5
W3	5.1	5.0	88.6	32.7	33.9	98.0	9.4	9.3	99.2
P4				34.5	32.8	103.5	8.6	9.1	90.8
E2	7.0	6.8	121.6	33.1	34.5	99.4	9.2	9.3	97.1
CKPG	5.8	5.8	101.5	33.3	33.3	99.8	9.5	9.5	99.8

Notes A and B are given in the appendix.

Table VI (Cont)

Averages of Mill Quality Data for NOV–DEC, 1990 33 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	88.2	89.9	100.3				16.9	17.7	99.1
P1	101.4	102.5	115.4	75.0	73.6	127.7			
G2	91.5	96.3	104.1						
W2	83.0	85.2	94.4	54.0	52.2	92.0			
R1	89.0	88.4	101.2	71.0	65.4	120.9	20.0	18.8	117.3
L1	98.4	92.0	111.9	65.0	63.3	110.7			
J3	87.0	85.3	99.0	62.0	61.2	105.6			
O1		85.5			48.2			16.2	
E1		79.6			69.8				
Y3	90.0	91.0	102.4				16.4	17.8	96.2
B1	88.0	86.0	100.1				14.1	14.5	82.7
C4		91.5						16.4	
N4	86.0	90.0	97.8						
E3		95.2			47.6				
O4	92.0	89.3	104.7	42.0	48.7	71.5			
U4		79.5			62.7				
T1	90.2	86.4	102.6	66.8	67.1	113.7			
C1	86.0	84.1	97.9	66.7	67.3	113.5			
C2	86.0	93.5	97.8	62.0	66.0	105.6			
W1	82.0	82.2	93.3				17.2	17.0	100.9
J2	84.0	84.2	95.6	46.0	45.3	78.3			
G1		86.0			58.1				
J1	85.6	86.6	97.4				16.5	17.4	96.5
Q2		87.0			57.0			20.5	
V2	89.0	85.2	101.2	67.0	61.4	114.1			
D3	82.3	86.3	93.6				15.6	15.4	91.2
N3	87.5	87.9	99.5	50.0	46.0	85.1	14.9	15.3	87.4
Q3	86.0	80.3	97.8	59.0	55.0	100.5			
W3	96.8	96.3	110.1	60.0	58.7	102.2			
P4	86.9	91.9	98.9						
E2	82.0	80.0	93.3				17.1	17.6	100.3
CKPG	88.3	87.9	100.4	60.5	58.7	103.0	16.5	17.0	96.9

Note B is given in the appendix.

Table VII

Averages of Mill Quality Data for JULY–AUG, 1990 38 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
P1	6.2	6.4	104.7	39.0	38.9	101.2	10.5	10.7	97.7
R1		5.6			38.3			10.6	
J3	5.7	5.6	96.2	38.2	38.2	99.3	11.5	11.2	107.0
E1	5.7	5.9	96.6	38.5	38.3	100.0	10.0	10.0	93.1
T1	6.1	6.2	103.0	38.6	38.6	100.3	11.3	11.5	105.3
J2	5.9	6.0	99.6	38.0	38.1	98.8	11.5	10.9	107.0
G1	5.6	5.5	94.6	38.2	39.4	99.2	12.1	11.0	112.1
M2		5.5			38.4			11.2	
V2		6.5			38.1			10.7	
D3	6.2	6.5	104.9	38.3	38.3	99.5	10.4	10.7	96.7
N3	5.8	5.7	97.9	38.3	38.5	99.6	10.4	10.2	96.7
Q3	5.6		94.6	38.9	38.9	101.1	11.1	11.2	103.2
P4		5.8		38.0	38.0	98.7	10.7	10.4	99.5
M1	5.7	5.8	96.7	39.0	39.1	101.3	10.4	10.9	97.0
K3		5.9			38.1			10.4	
L3		5.6		39.2	39.4	101.8	11.1	10.8	103.2
P3	5.7	5.9	96.2	38.7	38.4	100.4	11.0	10.8	102.3
V3		5.8			38.2			10.4	
G4	6.0	6.0	100.5	37.7	37.7	97.9	10.3	11.0	95.8
L4	6.0		101.6	37.5		97.5	10.3		95.9
V4		6.4			38.0			10.4	
Q4	5.9	6.0	98.9	39.2	39.4	101.9	10.0	10.7	93.0
B2	5.8		97.3	38.2		99.2	9.8		91.0
CKPG	5.9	5.9	98.9	38.4	38.5	99.9	10.7	10.8	99.8

Notes A and B are given in the appendix.

Table VII (Cont)

Averages of Mill Quality Data for JULY–AUG, 1990 38 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
P1	119.0	112.1	120.8	82.0	79.0	114.2			
R1		96.8			77.7			20.3	
J3	95.0	95.0	96.5	75.0	73.7	104.5			
E1	92.0	93.2	93.4	90.0	87.5	125.4			
T1	91.0	95.8	92.4	77.0	78.6	107.3			
J2	93.0	95.5	94.4	56.0	59.0	78.0		17.8	
G1	104.5	95.9	106.1	77.5	67.6	107.9			
M2		91.3			68.7				
V2		93.0			69.0			18.2	
D3	95.6	95.8	97.1				16.6	18.0	86.1
N3	98.0	100.4	99.5	53.0	61.1	73.8	17.3	18.8	90.0
Q3	91.0	97.3	92.4	65.0	62.3	90.5			
P4	100.5	102.8	102.0						
M1	94.6	94.3	96.0	78.2	81.0	109.0			
K3		97.0			68.0			18.9	
L3	98.0	101.0	99.5	68.0	76.7	94.7			
P3	109.0	103.8	110.7	65.0	67.5	90.5		18.9	
V3		102.0			67.2				
G4	109.0	110.9	110.7	77.7	78.8	108.2	20.6	21.0	106.9
L4	98.7		100.2				20.9		108.5
V4		101.7			65.0			21.2	
Q4	96.6	92.4	98.1	76.0	75.8	105.9			
B2	124.7		126.7				23.2		120.5
CKPG	100.6	98.5	102.2	72.3	71.8	100.8	19.7	19.2	102.4

Note B is given in the appendix.

Table VIII

Averages of Mill Quality Data for SEPT–OCT, 1990 38 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
P1	6.3	6.4	106.9	39.2	39.0	102.0	10.5	10.7	98.2
R1	5.8	5.6	98.4	38.2	38.3	99.4	10.0	10.6	93.5
J3		5.7			38.2			11.3	
E1		5.9			38.3			10.0	
T1	6.2	6.2	105.5	38.6	38.5	100.4		11.5	
J2	5.9	6.0	100.1	38.1	38.1	99.1	11.4	11.3	106.6
G1	5.7	5.5	96.7	39.2	39.3	101.9	11.5	11.2	107.5
M2	5.8	5.5	98.4	38.3	38.4	99.7	11.3	11.2	105.6
V2		6.6							
D3	6.1	6.4	103.5	38.1	38.3	99.1	10.6	10.6	99.3
N3	5.3	5.7	89.9	38.3	38.5	99.7	10.6	10.3	99.1
Q3		5.6		38.9	39.0	101.2	11.2	11.2	104.7
P4		5.8		37.9	38.0	98.6	10.4	10.4	97.2
M1	5.9	5.8	99.6	38.9	39.0	101.1	10.9	10.8	101.6
K3									
L3		5.6		39.1	39.3	101.8	11.6	10.9	108.4
P3	5.8	5.9	98.4	38.3	38.4	99.6	11.3	10.8	105.6
V3		5.8			38.1			10.2	
G4	6.5	6.0	110.2	37.8	37.7	98.4	9.9	10.9	92.5
L4	6.0	6.0	101.8	37.6	37.5	97.8	10.6	10.3	99.1
V4		6.4			38.0			10.4	
Q4		5.9			39.3			10.4	
B2	5.7	5.8	97.0	38.2	38.2	99.5	10.2	9.8	95.2
CKPG	5.9	5.9	100.5	38.4	38.5	99.9	10.8	10.7	100.9

Notes A and B are given in the appendix.

Table VIII (Cont)

Averages of Mill Quality Data for SEPT-OCT, 1990 38 LB Kraft Linerboard

Code	Burst PSIG			CD Ring Crush Lb.			CD STFI Lb/In.		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
P1	105.1	114.7	104.8	78.0	79.4	107.8			
R1	102.0	97.0	101.7	80.0	78.2	110.6	22.0	20.4	109.0
J3		95.2			74.3				
E1		92.7			89.5				
T1	96.2	94.3	96.0	76.9	78.0	106.3			
J2	94.0	94.0	93.8	58.0	59.5	80.2			
G1	94.5	97.0	94.3	62.5	70.5	86.4			
M2	96.0	91.3	95.8	74.0	68.7	102.3			
V2									
D3	88.5	96.8	88.2				16.3	17.9	80.9
N3	96.5	100.0	96.2	57.0	59.5	78.8	18.1	18.5	89.7
Q3	94.0	97.0	93.8	68.0	63.7	94.0			
P4	101.0	103.0	100.7						
M1	95.4	94.2	95.1	81.2	80.6	112.1			
K3									
L3	103.0	100.3	102.7	64.0	74.5	88.4			
P3	101.0	104.8	100.7	63.0	66.7	87.1		18.5	
V3		103.0			67.7				
G4	114.1	110.6	113.8	78.9	78.5	109.0	21.9	21.0	108.5
L4	102.2	98.7	101.9				20.6	20.9	102.2
V4		101.7			65.0			21.2	
Q4		94.5			75.9				
B2	121.1	124.7	120.8	76.5		105.7	22.6	23.2	111.7
CKPG	100.3	100.3	100.0	70.6	72.4	97.6	20.3	20.2	100.3

Note B is given in the appendix.

Table IX

Averages of Mill Quality Data for NOV–DEC, 1990 38 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
P1	6.6	6.3	106.8	38.9	39.0	96.3	10.9	10.6	96.7
R1	5.9	5.6	95.5	38.2	38.3	94.5	9.9	10.5	87.8
J3	5.8	5.7	93.8	38.1	38.2	94.4	11.4	11.4	101.1
E1		5.9			38.3			10.0	
T1	6.1	6.2	98.7	38.5	38.6	95.4	11.2	11.6	99.3
J2	5.9	5.9	95.5	38.1	38.1	94.4	10.5	11.3	93.1
G1	5.7	5.5	91.4	40.1	39.4	99.2	11.3	11.2	99.8
M2	5.8	5.6	93.8	38.5	38.4	95.4	10.8	11.4	95.8
V2		6.6							
D3	6.1	6.2	97.9	38.3	38.2	94.8	10.7	10.5	95.0
N3	5.1	5.6	82.5	38.5	38.4	95.4	10.4	10.3	92.3
Q3		5.6		38.9	38.9	96.5	11.3	11.3	100.2
P4		5.8		38.1	38.0	94.4	9.7	10.5	86.0
M1	5.8	5.8	94.5	39.9	38.9	98.9	10.6	10.8	94.0
K3	5.9		95.5	38.1		94.4	10.4		92.3
L3		5.6		39.1	39.3	96.9	11.3	11.0	100.2
P3	5.8	5.8	93.8	38.4	38.4	95.1	11.5	10.9	102.0
V3	5.9	5.9	95.5	38.2	38.2	94.7		10.3	
G4	6.4	6.1	103.5	37.8	37.7	93.7	10.5	10.6	93.1
L4	6.0	6.0	97.1	37.6	37.6	93.2	10.2	10.5	90.5
V4		6.4			38.1			10.5	
Q4		5.9			39.3			10.4	
B2		5.7			38.2			10.0	
CKPG	5.9	6.2	95.7	38.5	40.4	95.4	10.7	11.3	95.3

Notes A and B are given in the appendix.

Table IX (Cont)

Averages of Mill Quality Data for NOV–DEC, 1990 38 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
P1	111.4	113.4	106.1	90.0	78.2	117.7			
R1	100.0	98.0	95.2	83.0	78.4	108.5	22.0	20.8	109.9
J3	107.0	94.8	101.9	80.0	73.8	104.6			
E1		92.8			89.6				
T1	99.5	94.2	94.7	75.2	77.7	98.3			
J2	93.0	94.0	88.6	58.0	59.0	75.8			
G1	95.5	96.8	90.9		70.2				
M2	106.0	92.7	100.9	81.0	70.7	105.9			
V2									
D3	92.4	96.3	88.0				17.3	17.6	86.6
N3	96.0	99.4	91.4	62.5	58.1	81.7	18.0	18.3	89.9
Q3	92.0	96.5	87.6	69.0	65.3	90.2			
P4	97.1	101.7	92.5						
M1	95.1	93.5	90.5	81.3	79.8	106.3			
K3	100.0		95.2	64.0		83.7			
L3	100.0	100.8	95.2	65.0	72.4	85.0			
P3	107.0	104.0	101.9	67.0	66.0	87.6			
V3	90.2	104.0	85.9		65.5				
G4	106.9	110.8	101.8	73.8	78.3	96.5	20.9	21.5	104.4
L4	109.6	100.5	104.4				21.2	20.7	105.9
V4		99.0			65.0			18.5	
Q4		94.5			75.9				
B2		122.9			76.5			22.9	
CKPG	99.9	105.0	95.1	73.1	76.5	95.5	19.9	20.0	99.3

Note B is given in the appendix.

Table X

Averages of Mill Quality Data for JULY–AUG, 1990 42 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	6.4	6.5	107.7	41.6	41.6	98.4	10.8	11.0	91.7
P1	6.6	6.5	111.0	42.5	42.6	100.6	11.3	11.9	96.0
R1		5.8			42.2			11.7	
J3		5.8			42.1			12.7	
O1		5.1			42.1			11.4	
E1	5.9	6.0	99.7	42.5	42.3	100.6	11.2	11.0	95.1
Y3	6.4	6.5	107.7	42.1	42.1	99.7	11.0	10.9	93.4
C4	6.3	6.2	106.0	42.3	42.1	100.1	11.7	11.8	99.3
N4	5.2	5.2	87.5	42.2	42.2	99.7	12.9	12.8	109.5
U4	6.3	5.9	106.0	42.2	42.3	99.8	11.7	12.1	99.3
T1	6.5	6.4	108.7	42.4	42.3	100.2	12.6	12.4	106.6
W1	7.0	7.0	117.7	42.1	42.1	99.7	11.6	11.7	98.5
J2		6.0			42.2			12.2	
G1	5.8	5.5	96.7	42.1	41.9	99.5	11.7	12.0	98.9
J1	6.7	6.7	112.7	42.2	42.2	99.7	12.3	12.2	104.4
M2	5.7	5.7	95.9	42.3	42.3	100.1	12.0	11.7	101.9
Q2		5.1			42.8			12.9	
V2	6.5	6.5	109.3	42.1	42.1	99.7	11.3	11.3	96.0
D3	6.1	6.8	102.3	42.3	42.2	100.1	11.6	11.9	98.6
N3	5.8	5.7	97.6	42.0	42.2	99.4	11.6	11.2	98.5
Q3	5.8		97.6	42.9	42.6	101.5	12.5	12.4	106.1
W3	5.7	5.6	95.9	41.6	41.3	98.3	11.8	11.8	100.2
P4				42.0	42.2	99.3	11.6	11.0	98.5
E2	7.0	6.9	117.7	42.1	42.1	99.7	11.2	11.3	95.1
F1	6.4	6.5	107.7	42.2	42.2	99.8	11.8	12.2	99.8
M1	5.9	5.8	98.4	43.5	43.3	102.8	11.9	12.2	101.0
N1	5.5	5.2	92.2	42.2	42.3	99.9	11.1	10.9	94.0
H2	5.1	5.1	85.8	42.2	42.2	99.8	11.8	12.4	100.2
P2	5.6	6.0	94.2	42.1	42.3	99.5	10.5	11.4	89.2
T2	5.3	5.2	89.2	42.0	42.1	99.4	12.2	11.9	103.6
I3	5.6		94.2	43.0	43.1	101.7	12.1	12.6	102.7
K3	5.9	5.9	99.2	42.0	42.1	99.4	11.5	11.7	97.6
L3				43.0	43.1	101.8	12.2	12.3	103.6
M3		5.7			42.4			11.5	
U3		5.5			43.3			11.6	
V3	6.0	6.0	100.9	42.2	42.2	99.9	11.3	11.2	96.0
G4	6.5	6.1	108.5	41.7	41.6	98.7	11.0	11.7	93.0
L4	6.0	6.0	100.9	41.5	41.9	98.1	11.7	11.6	99.3
M4	5.2	5.2	87.5	42.2	42.3	99.7	11.9	12.4	101.0
Q4	5.9	5.9	98.4	43.3	43.1	102.4	11.0	11.2	93.3
T4	6.2	6.1	104.8	42.4	42.5	100.3	11.1	11.4	94.5
V4	6.5	6.5	108.5	41.8	41.7	98.9	11.5	11.8	97.2
P3	6.0	6.0	100.9	42.2	42.1	99.8	12.5	11.6	106.1
B2	5.8		96.9	42.4		100.4	11.0		93.1
CKPG	6.0	5.9	101.3	42.3	42.3	100.0	11.6	11.8	98.7

Notes A and B are given in the appendix.

Table X (Cont)

Averages of Mill Quality Data for JULY–AUG, 1990 42 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	108.5	105.0	101.5				22.1	22.1	107.6
P1	120.4	117.9	112.6	94.0	87.3	119.2			
R1		106.0			86.8			22.4	
J3		106.5			77.5				
O1		109.0			65.0			20.9	
E1	103.0	103.3	96.4	98.0	98.0	124.2			
Y3	110.0	109.5	102.9				20.2	20.8	98.3
C4	107.0	107.0	100.1				20.4	19.4	99.3
N4	114.0	106.0	106.6					17.8	
U4	101.0	102.0	94.5	83.0	72.0	105.2			
T1	101.2	103.2	94.7	90.4	89.2	114.6			
W1	107.0	108.5	100.1				20.6	20.8	100.3
J2		103.0			70.0				
G1	106.0	102.4	99.2	78.0	78.8	98.9			
J1	103.2	102.4	96.5				19.8	20.1	96.6
M2	105.0	106.3	98.2	86.0	82.8	109.0			
Q2		101.3			80.0			22.4	
V2	107.0	104.2	100.1	80.0	74.5	101.4		18.9	
D3	104.3	103.6	97.6				18.6	20.0	90.6
N3	103.0	104.4	96.4	63.0	70.1	79.9	18.8	20.0	91.5
Q3	98.0	103.3	91.7	72.0	69.8	91.3			
W3	108.6	107.7	101.6	77.0	75.3	97.6			
P4	102.5	107.6	95.9						
E2	106.0	106.5	99.2				21.1	21.2	102.7
F1	115.0	124.1	107.6	80.5	76.9	102.1	22.0	21.3	107.1
M1	100.5	102.6	94.0	88.3	89.4	111.9			
N1	101.0	104.7	94.5	96.0		121.7			
H2	115.0	111.5	107.6					18.4	
P2	107.0	105.7	100.1	77.0	77.8	97.6			
T2	99.0	100.7	92.6	78.0	74.0	98.9			
I3	103.0	108.7	96.4	75.0	71.3	95.1			
K3	103.0	103.2	96.4	71.0	73.2	90.0		20.4	
L3	108.0	106.8	101.0	72.0	76.2	91.3			
M3		112.7			87.7			22.7	
U3									
V3	105.9	106.3	99.1	74.5	73.7	94.4			
G4	123.0	119.0	115.0	91.2	88.4	115.6	24.9	23.0	121.0
L4	104.3	104.2	97.6				20.6	20.0	100.5
M4	119.0	109.8	111.3					19.1	
Q4	104.0	103.7	97.3	86.5	86.8	109.7			
T4	107.8	110.1	100.8	93.5	94.4	118.6			
V4	103.5	111.8	96.8	75.0	70.7	95.1	21.0	20.8	102.4
P3	109.0	107.5	102.0	67.0	70.0	84.9		19.8	
B2	133.3		124.7	83.0		105.2	24.1		117.5
CKPG	107.5	106.9	100.6	81.2	78.9	102.9	21.1	20.5	102.7

Note B is given in the appendix.

Table XI

Averages of Mill Quality Data for SEPT–OCT, 1990 42 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	6.7	6.5	112.9	41.7	41.6	98.6	10.9	10.9	92.8
P1	6.7	6.6	112.9	42.5	42.6	100.5	11.5	11.8	97.9
R1	5.9	5.8	99.4	42.2	42.2	99.7	10.9	11.7	92.8
J3		5.8			42.1			12.7	
O1		5.1			42.1			11.4	
E1		6.0			42.3			11.0	
Y3	6.6	6.5	111.2	42.1	42.1	99.6	10.9	10.8	92.8
C4	6.3	6.2	106.2	42.3	42.2	100.1	11.6	11.7	98.8
N4	5.3	5.2	89.3	42.2	42.2	99.8	12.9	12.8	109.8
U4		6.0			42.3			12.1	
T1	6.4	6.4	108.2	42.3	42.3	100.1	12.7	12.5	108.5
W1		7.0			42.1			11.6	
J2		6.0			42.2			12.2	
G1	5.8	5.5	96.9	42.1	41.9	99.6	12.5	11.9	106.0
J1	6.7	6.7	112.9	42.2	42.2	99.7	12.3	12.3	104.7
M2	5.6	5.7	94.4	42.3	42.3	100.1	12.2	11.8	103.9
Q2		5.1			42.7			12.9	
V2	6.5	6.5	109.5	42.1	42.1	99.6	11.6	11.3	98.8
D3	6.3	6.7	105.5	42.1	42.2	99.6	11.6	11.9	98.9
N3	5.4	5.7	91.0	42.2	42.2	99.9	11.4	11.2	97.1
Q3		5.8		42.9	42.7	101.5	12.5	12.4	106.4
W3	5.7	5.7	96.0	41.6	41.4	98.3	12.0	11.7	102.2
P4				42.0	42.2	99.3	10.8	11.1	92.0
E2	7.1	6.9	119.6	42.2	42.1	99.7	11.3	11.3	96.2
F1	6.6	6.5	110.4	42.2	42.2	99.8	12.1	12.2	103.0
M1	5.8	5.8	98.4	43.3	43.4	102.3	12.2	12.1	104.1
N1		5.2			42.3			10.9	
H2	5.0	5.1	84.2	42.2	42.2	99.9	11.7	12.3	99.6
P2	5.3	5.9	89.3	42.4	42.3	100.3	10.7	11.3	91.1
T2	5.0	5.2	84.2	42.0	42.1	99.4	11.9	11.9	101.3
I3		5.6		43.0	43.1	101.6	12.5	12.6	106.4
K3	5.9	5.9	99.4	42.1	42.1	99.6	11.8	11.7	100.5
L3				43.1	43.1	101.8	12.4	12.3	105.6
M3	5.8	5.7	97.7	42.3	42.4	100.0	11.3	11.5	96.2
U3		5.5			43.3			11.6	
V3	6.0	6.0	101.1	42.1	42.2	99.6	11.4	11.2	97.1
G4	6.5	6.1	109.5	42.0	41.6	99.3	10.6	11.5	90.3
L4	6.0	6.0	101.3	41.5	41.8	98.1	11.7	11.6	99.9
M4	5.1	5.2	85.9	42.1	42.2	99.5	11.7	12.4	99.6
Q4	5.9	5.9	98.7	43.4	43.2	102.6	11.2	11.1	95.4
T4	6.4	6.1	108.2	42.3	42.5	100.1	12.7	11.4	108.5
V4	6.5	6.5	109.7	41.8	41.7	98.8	11.3	11.8	96.2
P3	5.8	6.0	97.7		42.1		12.8	11.7	109.0
B2	6.0	5.8	101.1	42.0	42.4	99.4	11.5	11.0	97.8
W4	5.8		97.7	42.2		99.8	10.7		91.1
CKPG	6.0	5.9	101.3	42.3	42.3	99.9	11.7	11.7	99.8

Notes A and B are given in the appendix.

Table XI (Cont)

Averages of Mill Quality Data for SEPT–OCT, 1990 42 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	109.3	105.9	104.1				21.5	22.2	101.8
P1	111.4	118.8	106.1	95.3	89.1	119.4			
R1	110.0	106.5	104.7	91.0	87.3	114.0	24.0	22.5	113.6
J3		106.5			77.5				
O1		109.0			65.0			20.9	
E1		103.2			99.0				
Y3	117.0	109.7	111.4				20.8	20.8	98.5
C4	106.0	107.2	100.9				20.4	19.8	96.6
N4	107.0	107.2	101.9						
U4		101.8			77.5				
T1	103.9	102.4	98.9	91.6	89.4	114.8			
W1		108.0						20.7	
J2		103.0			70.0				
G1	99.5	103.1	94.7	66.0	80.9	82.7			
J1	101.9	102.5	97.0				20.1	20.2	95.0
M2	107.0	105.8	101.9	85.0	83.7	106.5			
Q2		101.0			80.0			23.1	
V2	103.4	104.8	98.5	75.5	75.6	94.6		18.6	
D3	101.4	104.0	96.5				19.0	19.8	89.8
N3	103.0	104.2	98.1	70.5	68.9	88.3	19.4	19.8	91.8
Q3	98.0	102.8	93.3	73.0	71.5	91.4			
W3	106.2	107.9	101.1	81.0	77.0	101.4			
P4	107.1	107.0	102.0						
E2	105.0	106.5	100.0				21.2	21.3	100.4
F1	110.0	123.3	104.7	77.0	77.6	96.4	21.0	21.5	99.4
M1	100.1	101.9	95.3	89.1	89.4	111.6			
N1		104.0			96.0				
H2	114.0	112.5	108.5		72.0				
P2	106.0	105.8	100.9	78.0	77.6	97.7			
T2	101.0	100.2	96.2	76.0	75.0	95.2			
I3	104.0	108.3	99.0	74.0	72.5	92.7			
K3	105.0	103.2	100.0	69.0	72.7	86.4		20.2	
L3	110.0	106.7	104.7	71.0	75.7	88.9			
M3	115.0	112.8	109.5	88.0	87.6	110.2	24.0	22.6	113.6
U3									
V3	104.1	106.5	99.1	74.7	73.9	93.6			
G4	123.5	119.8	117.5	91.9	89.0	115.1	24.8	23.5	117.4
L4	104.9	104.5	99.9				20.7	20.1	97.9
M4	106.0	110.7	100.9						
Q4	102.6	103.8	97.7	86.3	86.8	108.1			
T4	106.9	109.1	101.8	96.4	93.1	120.7			
V4	105.0	108.3	100.0	82.0	71.8	102.7	20.1	21.1	95.2
P3	110.0	107.8	104.7	71.0	69.2	88.9		19.7	
B2	127.6	133.3	121.4	84.7	83.0	106.0	21.6	24.1	102.0
W4	115.0		109.5	95.0		119.0			
CKPG	107.4	105.0	102.3	81.3	79.8	101.8	21.3	21.1	100.9

Note B is given in the appendix.

Table XII

Averages of Mill Quality Data for NOV–DEC, 1990 42 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	6.9	6.5	116.1	41.6	41.6	98.4	10.8	10.9	92.2
P1	6.8	6.6	114.4	42.5	42.6	100.4	11.8	11.8	100.7
R1	6.0	5.8	101.0	42.3	42.2	100.1	10.7	11.5	91.3
J3		5.8			42.1			12.7	
O1		5.1			42.1			11.4	
E1		6.0			42.3			11.1	
Y3	6.6	6.5	111.1	42.1	42.1	99.7	10.8	10.8	92.2
C4	6.4	6.2	107.7	42.1	42.2	99.7	11.8	11.7	100.7
N4	5.2	5.2	87.5	40.0	42.2	94.6	12.9	12.8	110.1
U4		6.0			42.3			12.1	
T1	6.5	6.4	109.9	42.3	42.3	100.2	12.6	12.5	107.2
W1		7.0			42.1			11.6	
J2		6.0			42.2			12.2	
G1	5.6	5.6	94.2	42.0	41.9	99.3	12.0	11.9	102.0
J1	6.6	6.7	111.1	42.1	42.2	99.7	12.3	12.3	105.0
M2	5.8	5.7	97.6	42.3	42.3	100.1	12.0	11.8	102.4
Q2		5.2			42.7			12.9	
V2	6.5	6.5	109.4	42.1	42.1	99.7	11.5	11.4	98.2
D3	6.1	6.5	102.5	42.2	42.2	99.8	11.7	11.8	99.8
N3	5.4	5.7	90.9	42.3	42.2	100.1	11.5	11.3	98.2
Q3		5.8		43.0	42.8	101.6	12.5	12.5	106.7
W3	5.5	5.7	92.6	41.6	41.4	98.3	12.0	11.9	102.4
P4				42.0	42.0	99.3	10.5	11.1	89.6
E2	7.0	6.9	117.8	42.1	42.1	99.6	11.2	11.3	95.6
F1	6.3	6.5	106.0	42.2	42.2	99.9	12.9	12.1	110.1
M1	5.9	5.8	99.3	43.4	43.4	102.7	11.8	12.1	100.5
N1		5.2			42.3			11.0	
H2	5.2	5.1	87.5	40.0	42.2	94.6	12.1	12.2	103.3
P2		5.8			42.3			11.0	
T2	4.2	5.2	70.7	42.5	42.1	100.5	11.2	11.9	95.6
I3		5.6		43.0	43.0	101.6	12.7	12.5	108.4
K3	5.9	5.9	99.3	42.1	42.1	99.7	12.0	11.6	102.4
L3				43.0	43.1	101.8	12.5	12.3	106.7
M3	5.8	5.7	97.6	42.4	42.4	100.3	11.1	11.5	94.8
U3		5.8			43.3			11.2	
V3	6.0	6.0	101.0	42.2	42.2	99.9	11.3	11.2	96.5
G4	6.5	6.2	109.4	41.7	41.7	98.7	11.3	11.3	96.5
L4	6.0	6.0	101.0	41.4	41.7	98.0	12.3	11.6	105.0
M4	5.3	5.2	89.2	39.9	42.2	94.3	11.8	12.3	100.7
Q4	5.9	5.9	100.0	43.5	43.2	102.8	10.9	11.1	92.9
T4	6.1	6.2	102.5	42.4	42.4	100.2	10.8	11.7	92.5
V4	6.6	6.5	110.4	42.0	41.8	99.3	11.5	11.7	98.2
P3	5.8	6.0	97.6	42.1	42.1	99.6	12.9	12.0	110.1
B2		5.9			42.2			11.2	
W4	5.9	5.8	99.3	42.0	42.2	99.5	10.7	10.7	91.3
Z4	5.3		89.2	42.2		99.9	11.3		96.5
CKPG	6.0	5.9	100.8	42.1	42.3	99.5	11.7	11.7	99.9

Notes A and B are given in the appendix.

Table XII (Cont)

Averages of Mill Quality Data for NOV–DEC, 1990 42 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	105.4	106.7	98.1				21.0	22.2	97.9
P1	117.4	117.9	109.2	85.0	91.2	105.3			
R1	110.0	108.0	102.3	93.0	88.5	115.2	24.0	23.0	111.9
J3		106.5			77.5				
O1		109.0			65.0			20.9	
E1		103.2			100.0				
Y3	109.0	111.2	101.4				21.4	21.3	99.8
C4	110.0	107.0	102.3				19.9	19.9	92.8
N4	103.0	107.7	95.8						
U4		102.0			77.5				
T1	105.9	102.4	98.5	88.7	89.8	109.9			
W1		108.0						20.6	
J2		103.0			70.0				
G1	97.5	102.7	90.7		80.6				
J1	102.8	102.4	95.6				20.8	20.3	97.0
M2	107.0	105.7	99.6	87.0	84.3	107.8			
Q2		100.5			80.0			24.2	
V2	104.0	104.7	96.8	77.0	76.4	95.4			
D3	103.2	104.1	96.0				19.4	19.5	90.3
N3	102.0	104.3	94.9	69.0	69.3	85.5	18.4	19.7	85.8
Q3	101.0	101.7	94.0	76.0	72.7	94.2			
W3	107.1	107.6	99.7	82.0	78.7	101.6			
P4	105.0	106.4	97.7						
E2	106.0	106.0	98.6				21.4	21.3	99.8
F1	117.0	121.9	108.9	85.0	77.5	105.3	20.0	21.4	93.3
M1	102.8	100.7	95.6	89.6	89.0	111.0			
N1		103.4			96.0				
H2	108.0	113.3	100.5		72.0				
P2		106.7			77.7				
T2	105.0	100.5	97.7	76.0	75.3	94.2			
I3	103.0	107.7	95.8	72.0	73.3	89.2			
K3	104.0	103.5	96.8	70.0	72.0	86.7			
L3	106.0	107.0	98.6	67.0	75.0	83.0			
M3	114.0	113.8	106.1	89.0	88.0	110.3	23.0	23.0	107.3
U3									
V3	104.5	106.0	97.2	74.9	74.4	92.8			
G4	113.8	119.6	105.9	88.2	89.5	109.3	20.9	24.1	97.5
L4	107.3	104.4	99.8				21.7	20.2	101.2
M4	104.0	109.8	96.8						
Q4	105.1	103.6	97.8	87.4	86.7	108.3			
T4	104.8	109.1	97.5	92.3	93.7	114.3			
V4	109.5	105.8	101.9	83.5	73.8	103.5	20.3	20.2	94.7
P3	106.0	108.2	98.6	67.0	69.0	83.0			
B2		130.4			83.8			22.8	
W4	117.0	115.0	108.9	90.0	95.0	111.5			
Z4	121.1		112.7	99.8		123.7			
CKPG	107.1	107.5	99.7	82.1	80.7	101.8	20.9	21.4	97.6

Note B is given in the appendix.

Table XIII

Averages of Mill Quality Data for JULY–AUG, 1990 69 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	7.5	7.1	116.1	68.2	68.0	98.4	18.0	18.7	95.1
P1	6.2	5.8	96.0	69.8	70.0	100.7	17.9	19.2	94.5
C4		6.3			69.7			19.6	
G1	6.0	6.3	92.1	68.8	69.1	99.2	19.0	18.7	100.1
M2	5.8	5.8	89.8	69.5	69.5	100.3	19.2	19.0	101.4
V2	6.8	6.7	105.3	69.2	69.2	99.8	17.9	18.3	94.5
D3		6.5			69.2			18.4	
N3	6.4	6.3	99.1	69.2	69.3	99.8	18.8	18.8	99.3
W3	5.9	5.9	91.3	67.9	67.8	97.9	19.4	19.2	102.5
P4		6.8		64.4	69.0	92.9	17.4	18.5	91.9
E2	7.0	7.0	108.4	69.2	69.2	99.9	15.3	17.5	80.8
F1	7.5	7.3	115.3	69.2	69.4	99.8	19.5	19.3	102.7
K1	6.1	6.1	94.4	70.3	70.0	101.3	19.6	19.2	103.5
M1	6.1	6.0	93.8	70.2	69.8	101.2	19.7	19.8	104.2
N1	6.3	6.2	97.7	70.7	69.5	101.9	17.2	18.4	91.0
H2	5.7	5.8	88.2	69.1	69.1	99.7	18.6	19.6	98.2
P2	6.5	6.7	100.6	69.8	69.7	100.6	18.4	19.8	97.2
T2	6.4	6.9	99.1	68.9	69.1	99.4	20.4	19.5	107.7
I3	5.6	6.8	86.7	70.6	70.5	101.9	19.6	19.8	103.5
L3				70.9	70.8	102.3	18.7	20.1	98.8
M3		6.9			69.1			18.3	
U3		6.4			69.8			19.4	
V3	7.0	6.9	108.4	69.2	69.2	99.8	18.6	18.3	98.2
L4	7.0	6.9	107.9	68.8	69.0	99.3	19.4	19.4	102.4
T4	6.3	6.1	98.0	69.4	69.3	100.1	17.4	18.2	92.1
V4	6.5	6.6	100.5	68.5	68.8	98.9	19.5	19.4	102.7
P3	6.2	6.3	96.0	69.1	69.2	99.6	18.6	17.7	98.2
Y2	6.1	6.1	94.4	69.2	69.2	99.8	18.9	18.1	99.8
G4	7.3		112.2	69.1		99.7	17.2		90.6
CKPG	6.4	6.5	99.6	69.2	69.3	99.8	18.6	18.9	98.0

Notes A and B are given in the appendix.

Table XIII (Cont)

Averages of Mill Quality Data for JULY–AUG, 1990 69 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	153.8	145.3	104.6				36.7	34.3	115.3
P1	180.2	173.5	122.6	160.0	146.1	123.5			
C4		140.7			152.0			29.0	
G1	139.5	134.2	94.9	143.0	141.8	110.4			
M2	144.0	151.8	98.0	136.0	131.5	105.0			
V2	163.0	154.2	110.9	142.0	125.9	109.6		30.8	
D3		138.0			117.0				
N3	138.5	137.8	94.2	115.0	125.3	88.8	28.2	29.1	88.6
W3	156.3	155.2	106.3	131.0	129.0	101.1			
P4	142.6	151.2	97.0					34.2	
E2	147.0	154.5	100.0		123.0		33.8	32.9	106.2
F1	152.0	160.6	103.4	126.0	128.6	97.3	32.0	34.2	100.5
K1	135.0	141.7	91.8	112.0	121.0	86.5			
M1	136.1	138.7	92.6	138.1	140.8	106.7			
N1	145.0	144.7	98.6	151.0	141.0	116.6			
H2	147.0	142.8	100.0		129.0			29.9	
P2	142.0	140.2	96.6	126.0	129.8	97.3			
T2	128.0	130.8	87.1	132.0	124.3	101.9			
I3	135.0	142.5	91.8	119.0	119.0	91.9		33.0	
L3	140.0	147.2	95.2	133.0	126.8	102.7			
M3		149.0			125.7			33.0	
U3		145.6						32.0	
V3	153.7	155.7	104.6	123.4	125.1	95.3			
L4	146.6	142.0	99.7		126.5		32.5	31.8	102.1
T4	153.5	157.9	104.4	143.6	141.2	110.9			
V4	137.0	141.5	93.2	124.0	124.0	95.7	31.9	31.9	100.3
P3	163.0	152.4	110.9	112.0	114.0	86.5		32.5	
Y2	143.0	146.6	97.3				30.3	28.9	95.2
G4	175.5		119.4	172.7		133.3	40.0		125.6
CKPG	147.9	147.0	100.6	133.7	129.5	103.2	33.2	31.8	104.2

Note B is given in the appendix.

Table XIV

Averages of Mill Quality Data for SEPT–OCT, 1990 69 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	7.4	7.1	114.3	68.4	68.0	98.7	18.0	18.5	95.7
P1	6.4	5.9	98.9	69.6	70.1	100.5	19.4	19.0	103.1
C4	6.3	6.3	97.3	69.9	70.0	100.9	19.5	19.6	103.7
G1	6.4	6.1	98.9	68.5	69.0	98.8	19.0	18.7	101.0
M2	5.8	5.9	89.6	69.4	69.5	100.1	19.4	18.9	103.1
V2	6.8	6.7	105.0	69.2	69.2	99.8	18.6	18.2	98.9
D3		6.5			69.2			18.4	
N3	5.9	6.3	91.1	69.3	69.3	100.0	19.1	18.8	101.5
W3	6.0	5.9	92.7	68.0	67.9	98.1	19.2	19.2	102.1
P4		6.8		69.0	68.3	99.5	18.9	18.2	100.5
E2	7.0	7.0	108.1	69.2	69.2	99.9	16.7	17.2	88.8
F1	7.3	7.3	112.0	69.2	69.4	99.9	18.8	19.4	99.9
K1	6.2	6.1	95.8	70.1	70.0	101.1	19.1	19.3	101.5
M1	5.9	6.0	90.8	70.1	69.8	101.2	20.3	19.9	107.9
N1		6.2			69.7			18.1	
H2	5.7	5.8	88.0	69.2	69.1	99.9	19.0	19.4	101.0
P2	7.0	6.8	108.1	69.4	69.8	100.1	18.7	19.6	99.4
T2	6.3	6.8	97.3	68.7	69.1	99.1	20.6	19.6	109.5
I3		6.2		70.6	70.5	101.8	19.8	19.8	105.3
L3				70.9	70.8	102.2	18.7	19.8	99.4
M3	6.6	6.8	102.0	69.0	69.1	99.5	18.1	18.3	96.2
U3		6.5			69.7			19.3	
V3	7.0	6.9	108.1	69.2	69.2	99.9	18.9	18.4	100.5
L4	6.9	6.9	107.2	68.8	69.0	99.3	19.4	19.4	103.0
T4		6.1			69.3			18.0	
V4	6.7	6.6	103.0	68.7	68.7	99.2	19.8	19.4	105.0
P3	6.0	6.3	92.7	69.4	69.2	100.2	19.6	17.9	104.2
Y2	6.2	6.1	95.8	69.2	69.2	99.9	18.5	18.3	98.3
G4		7.3			69.1			17.2	
B2	6.6		101.5	69.2		99.8	18.7		99.2
Z4	5.7		88.0	69.3		100.0	18.5		98.3
CKPG	6.4	6.5	99.4	69.3	69.3	100.0	19.0	18.8	101.0

Notes A and B are given in the appendix.

Table XIV (Cont)

Averages of Mill Quality Data for SEPT–OCT, 1990 69 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	147.8	147.4	99.9				36.0	35.0	110.6
P1	166.7	175.1	112.7	148.0	149.9	112.2			
C4	148.0	140.0	100.0		152.0		29.0	29.6	89.1
G1	130.0	136.1	87.9	141.0	142.0	106.9			
M2	145.0	150.8	98.0	135.0	136.3	102.4			
V2	148.0	155.6	100.0	132.5	129.1	100.5		30.7	
D3		138.0			117.0				
N3	137.0	137.9	92.6	123.0	122.8	93.3	29.4	28.9	90.3
W3	153.1	154.2	103.5	133.0	131.3	100.9			
P4	164.4	151.2	111.1					34.2	
E2	147.0	153.7	99.4		123.0		33.5	33.3	102.9
F1	156.0	158.3	105.5	123.5	128.1	93.7	31.5	33.7	96.8
K1	137.0	140.3	92.6	108.0	120.2	81.9			
M1	140.0	138.6	94.6	143.8	140.4	109.1			
N1		144.7			143.5				
H2	160.0	142.7	108.2		129.0				
P2	140.0	140.7	94.6	120.0	129.0	91.0			
T2	129.0	130.5	87.2	130.0	127.0	98.6			
I3	138.0	142.2	93.3	120.0	120.3	91.0		33.0	
L3	145.0	144.4	98.0	126.0	128.2	95.6			
M3	148.0	149.2	100.0	133.0	127.0	100.9	35.0	33.5	107.5
U3		145.4						32.0	
V3	144.6	156.2	97.8	123.5	124.8	93.7			
L4	144.3	143.1	97.5		126.5		31.9	31.7	98.0
T4	152.4	158.2	103.0	145.7	140.0	110.5			
V4	139.5	140.8	94.3	135.0	124.0	102.4	34.8	31.9	106.9
P3	154.0	154.0	104.1	118.0	112.2	89.5		31.6	
Y2	143.0	145.4	96.7				30.9	29.2	94.9
G4		175.5			172.7			40.0	
B2	154.2		104.3	119.7		90.8	39.8		122.2
Z4	158.6		107.2	140.4		106.5			
CKPG	147.1	147.9	99.4	130.0	131.9	98.6	33.2	32.6	101.9

Note B is given in the appendix.

Table XV

Averages of Mill Quality Data for NOV–DEC, 1990 69 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
S3	7.4	7.2	114.7	68.3	68.2	98.6	18.1	18.3	96.4
P1	6.3	6.0	97.6	69.5	70.0	100.3	18.9	19.0	100.6
C4	6.3	6.3	97.6	69.6	70.0	100.5	19.9	19.5	106.0
G1	6.4	6.2	99.2	68.8	69.0	99.3	18.3	18.7	97.2
M2	6.6	5.9	102.3	69.5	69.5	100.3	19.0	18.9	101.2
V2	6.7	6.8	103.8	69.1	69.2	99.7	18.1	18.2	96.4
D3		6.5			69.2			18.4	
N3	5.8	6.3	89.9	69.4	69.3	100.2	19.0	18.9	101.2
W3	5.9	5.9	91.4	67.9	68.1	98.0	19.5	19.2	103.8
P4				69.0	68.3	99.6	18.7	18.4	99.6
E2	7.0	7.0	108.5	69.2	69.2	99.9	16.5	17.1	87.9
F1	7.5	7.2	116.2	69.2	69.4	99.9	19.1	19.4	101.7
M1	6.1	6.0	94.4	70.9	69.9	102.3	20.9	19.9	111.2
N1		6.2			69.8			18.0	
H2	5.7	5.8	88.3	65.3	69.1	94.2	19.0	19.4	101.2
P2		6.8			69.8			19.5	
T2	5.7	6.7	88.3	69.5	69.1	100.4	18.2	19.7	96.9
I3		6.2		70.5	70.4	101.7	19.9	19.7	106.0
L3				70.8	70.8	102.2	19.1	19.6	101.7
M3	6.7	6.8	103.8	69.0	69.1	99.6	18.0	18.2	95.8
U3		6.5			69.5			19.4	
V3	7.0	6.9	108.5	69.2	69.2	99.9	18.9	18.5	100.6
L4	7.0	6.9	108.5	68.8	68.9	99.3	19.8	19.3	105.4
T4	6.2	6.2	96.2	69.3	69.3	100.0	17.9	17.9	95.5
V4	6.6	6.6	102.8	68.7	68.7	99.2	19.2	19.5	102.2
P3	6.0	6.2	93.0	69.2	69.2	99.9	19.2	18.3	102.2
Y2	6.3	6.2	97.6	69.2	69.2	99.9	18.7	18.4	99.6
G4		7.3			69.1			17.2	
B2		6.6			69.1			18.7	
Z4	5.9	5.7	91.4	69.2	69.3	99.9	18.4	18.5	98.0
CKPG	6.4	6.5	99.7	69.1	69.3	99.8	18.8	18.8	100.3

Notes A and B are given in the appendix.

Table XV (Cont)

Averages of Mill Quality Data for NOV-DEC, 1990 69 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
S3	149.3	147.0	100.8				34.7	35.5	104.2
P1	176.8	172.3	119.3	149.0	150.9	112.7			
C4	148.0	142.7	99.9		152.0		31.1	29.3	93.4
G1	133.0	135.6	89.8	148.0	141.8	111.9			
M2	145.0	148.3	97.9	139.0	136.2	105.1			
V2	157.0	154.0	106.0	130.0	130.8	98.3			
D3		138.0			117.0				
N3	138.0	137.9	93.2	126.0	121.8	95.3	29.1	28.6	87.4
W3	154.2	154.0	104.1	132.0	132.7	99.8			
P4	164.3	152.7	110.9					34.2	
E2	152.0	152.3	102.6		123.0		34.0	33.4	102.1
F1	150.0	156.9	101.3	129.0	127.3	97.5	31.0	33.0	93.1
M1	136.9	138.4	92.4	144.2	140.8	109.0			
N1		144.8			144.4				
H2	152.0	145.8	102.6		129.0				
P2		140.8			127.5				
T2	137.0	130.8	92.5	121.0	127.8	91.5			
I3	137.0	142.2	92.5	118.0	121.3	89.2		33.0	
L3	147.0	144.4	99.2	122.0	129.2	92.2			
M3	146.0	149.2	98.6	134.0	129.4	101.3	35.0	34.3	105.1
U3		143.6						31.8	
V3	144.2	154.3	97.3	121.0	125.2	91.5			
L4	145.3	143.7	98.1		126.5		31.0	31.4	93.1
T4	152.5	157.6	103.0	145.3	139.8	109.9			
V4	143.0	140.0	96.5	136.0	126.8	102.8	32.5	32.3	97.6
P3	148.0	154.4	99.9	115.0	112.8	87.0			
Y2	143.0	144.6	96.5				30.1	29.7	90.4
G4		175.5			172.7			40.0	
B2		154.2			119.7			39.8	
Z4	160.6		108.4	160.8		121.6			
CKPG	148.3	148.1	100.1	133.5	132.3	101.0	32.1	33.3	96.3

Note B is given in the appendix.

Table XVI

Averages of Mill Quality Data for JULY–AUG, 1990 90 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
G1	6.8	6.4	103.6	90.4	90.0	100.0	25.0	25.1	102.3
M2	5.7	5.8	86.8	90.5	90.5	100.2	26.5	25.5	108.5
W3	8.0	8.4	121.9	90.5	88.4	100.2	25.6	25.5	104.8
E2	6.7	6.9	102.1	90.4	90.3	100.1	20.8	20.7	85.1
F1	7.3	7.4	110.4	90.4	90.3	100.1	24.5	25.1	100.3
K1	6.1	6.2	92.9	91.7	91.4	101.5	25.8	25.8	105.6
N1	6.4	6.4	97.0	90.7	90.7	100.5	22.1	23.6	90.6
H2		6.2			89.7			25.1	
P2		6.9			90.3			25.5	
U3		6.1			91.9			24.8	
T4	6.5	6.2	98.2	90.4	90.4	100.1	22.9	22.6	93.7
V4	6.6	6.7	99.8	89.7	90.1	99.3	26.0	26.1	106.4
P3	6.2	6.3	94.4	90.2	90.2	99.9	24.0	23.3	98.2
Y2	6.0	6.1	91.4	90.4	90.3	100.1	24.1	23.5	98.6
CKPG	6.6	6.6	99.9	90.5	90.3	100.2	24.3	24.4	99.5

Notes A and B are given in the appendix.

Table XVI (Cont)

Averages of Mill Quality Data for JULY–AUG, 1990 90 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
G1	165.5	151.9	92.8	198.5	174.5	119.2			
M2	164.0	171.0	91.9	173.0	166.4	103.8			
W3	198.0	193.0	111.0		149.0				
E2	193.0	189.2	108.2				46.0	43.7	108.2
F1	194.5	199.7	109.0	158.0	159.0	94.8	39.0	42.2	91.8
K1	164.0	166.7	91.9	146.0	150.3	87.6			
N1	163.0	163.3	91.4	178.0	176.7	106.8			
H2		167.5						42.6	
P2		174.8			185.7				
U3		190.3						44.4	
T4	183.2	190.6	102.7	190.9	188.2	114.6			
V4	162.5	171.9	91.1	195.0	165.7	117.1	45.2	42.6	106.3
P3	190.0	182.7	106.5	144.0	150.5	86.4		43.1	
Y2	180.0	184.8	100.9				41.3	39.0	97.2
CKPG	178.0	178.4	99.8	172.9	166.6	103.8	42.9	42.5	100.9

Note B is given in the appendix.

Table XVII

Averages of Mill Quality Data for SEPT–OCT, 1990 90 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
G1	6.8	6.6	102.3	89.8	90.1	99.3	26.0	25.1	105.9
M2	5.7	5.8	86.4	90.9	90.5	100.6	25.9	25.7	105.7
W3	7.9	8.3	119.7	88.8	89.5	98.2	25.4	25.6	103.6
E2	7.1	6.9	107.6	90.0	90.3	99.6	21.0	20.6	85.7
F1	7.4	7.3	112.1	90.5	90.3	100.1	24.3	25.2	98.9
K1	6.0	6.2	90.9	91.8	91.4	101.5	25.7	25.9	104.8
N1		6.3			90.8			23.1	
H2		6.4			89.9			25.1	
P2	6.1	6.9	92.4	90.4	90.3	100.1	25.7	25.5	104.8
U3		6.2			91.9			24.5	
T4		6.3			90.4			22.4	
V4	7.0	6.7	105.6	90.5	90.0	100.2	25.8	26.1	105.0
P3	6.1	6.3	92.4	90.3	90.2	99.9	24.6	23.3	100.4
Y2	6.3	6.1	95.4	90.3	90.3	99.9	24.1	23.6	98.3
L4	7.0	7.0	105.3	89.7	89.8	99.3	25.3	26.1	103.1
Z4	5.8		87.9	90.5		100.1	24.5		99.9
CKPG	6.6	6.6	99.8	90.3	90.4	99.9	24.8	24.5	101.3

Notes A and B are given in the appendix.

Table XVII (Cont)

Averages of Mill Quality Data for SEPT–OCT, 1990 90 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
G1	154.0	155.5	86.6	162.5	177.9	95.8			
M2	167.0	169.8	94.0	170.0	167.5	100.2			
W3	195.9	195.0	110.2						
E2	190.0	189.7	106.9				45.0	44.2	105.2
F1	186.5	196.8	104.9	164.5	158.7	97.0	40.0	41.3	93.5
K1	167.0	165.8	94.0	147.0	147.7	86.7			
N1		163.8			178.0				
H2		168.3							
P2	183.0	174.8	103.0	160.0	185.7	94.4			
U3		191.0						44.4	
T4	190.3	188.9	107.1	185.2	188.5	109.2			
V4	168.0	170.3	94.5	170.0	173.0	100.2	41.9	43.1	97.8
P3	173.0	184.7	97.3	156.0	149.3	92.0		44.4	
Y2	180.0	183.7	101.3				43.0	39.2	100.5
L4	173.7	168.0	97.7				46.3	43.0	108.1
Z4	191.2		107.6	193.6		114.2			
CKPG	178.4	177.7	100.4	167.6	169.6	98.9	43.2	42.8	101.0

Note B is given in the appendix.

Table XVIII

Averages of Mill Quality Data for NOV-DEC, 1990 90 LB Kraft Linerboard

Code	Moisture Content Percent			Adj. Basis Wt. *A Lb/M Sq. Ft.			Caliper Mils		
	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B	Cur. Av.	Cum. Av.	Ind. *B
G1	6.8	6.6	104.1	89.5	90.1	98.9	25.3	25.2	103.3
M2	6.8	5.8	104.1	90.4	90.6	100.0	25.5	25.7	104.1
W3		8.0			89.6			25.5	
E2	6.9	6.9	105.6	90.3	90.3	99.9	20.5	20.4	83.7
F1	7.5	7.3	114.8	90.3	90.4	99.9	25.0	25.1	102.1
K1	5.9	6.2	90.3	91.7	91.6	101.4	25.5	25.8	104.1
N1		6.3			90.8			22.7	
H2		6.4			89.9			25.1	
P2		6.6			90.3			25.5	
U3		6.2			91.8			24.8	
T4	6.2	6.4	95.5	90.5	90.5	100.1	23.1	22.4	94.3
V4	6.7	6.7	102.0	89.8	90.1	99.3	25.4	26.1	103.7
P3	6.3	6.2	96.4	90.2	90.3	99.8	24.2	23.7	98.8
Y2	6.2	6.2	94.9	90.1	90.3	99.6	23.6	23.6	96.4
L4	7.0	7.0	107.2	89.7	89.7	99.2	25.5	25.7	104.1
Z4	6.2	5.8	94.9	90.4	90.5	100.0	25.1	24.5	102.5
CKPG	6.6	6.5	100.9	90.3	90.4	99.8	24.4	24.5	99.8

Notes A and B are given in the appendix.

Table XVIII (Cont)

Averages of Mill Quality Data for NOV–DEC, 1990 90 LB Kraft Linerboard

Code	Burst PSIG Cur. Av.	Burst PSIG Cum. Av.	Burst PSIG Ind. *B	CD Ring Crush Lb. Cur. Av.	CD Ring Crush Lb. Cum. Av.	CD Ring Crush Lb. Ind. *B	CD STFI Lb/In. Cur. Av.	CD STFI Lb/In. Cum. Av.	CD STFI Lb/In. Ind. *B
G1	156.0	156.2	87.5	153.0	183.0	88.8			
M2	166.0	169.7	93.1	166.0	169.5	96.3			
W3		197.0							
E2	196.0	189.3	109.9				45.7	44.6	107.5
F1	184.0	193.2	103.2	169.0	160.1	98.0		40.8	0.0
K1	166.0	165.7	93.1	151.0	149.0	87.6			
N1		164.2			180.4				
H2		168.3							
P2		177.0			179.3				
U3		189.0						42.4	
T4	184.2	189.2	103.3	179.9	188.0	104.4			
V4	172.0	168.5	96.4	173.0	172.4	100.4	43.3	42.8	101.9
P3	171.0	182.0	95.9	154.0	148.5	89.3			
Y2	174.0	182.5	97.6				41.5	39.8	97.6
L4	176.1	170.9	98.7				41.5	44.6	97.6
Z4	178.4	191.2	100.0	207.2	193.6	120.2			
CKPG	174.9	178.4	98.1	169.1	172.4	98.1	43.0	42.5	101.2

Note B is given in the appendix.

Data submitted by the participating mills relative to conditioning and testing environments are summarized in Table XIX. The procedures used in calculating adjusted basis weight, cumulative machine averages, machine factors, machine indexes, and C.K.P.G. indexes are described in the Appendix.

It should be explained that the number of machines for which data are compiled in each table for a specified period varies for these reasons: a machine must have (a) produced at least 500 tons of the pertinent grade weight during the specified period, or (b) produced 500 tons of pertinent grade weight during ANY ONE OR MORE of the 12 months prior to the specified period (so that a cumulative average is available), to be included in a given table.

TABLE XIX

Data on Conditioning and Testing Environments
JUL-AUG, SEPT-OCT, NOV-DEC, 1990

	Conditioning Enviroment				Testing Environment
		Procedures			
Code	Conditioned Before Testing?	Min.	Temp°F	R.H.%	Are Quality Samples Tested Under Controlled Conditions Of Temperature and Humidity?
B1	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
C1	NO	--	--	--	YES: 73 ±4°F; 50 ±2 % RH
E1	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
F1	NO	--	--	--	YES: 0 ±0°F; 0 ±0 % RH
G1	NO	--	--	--	NO
J1	NO	--	--	--	YES: 73 ±5°F; 50 ±5 % RH
K1	YES	10	0	0	YES: 72 ±2°F; 50 ±2 % RH
L1	NO	--	--	--	YES: 70 ±2°F; 50 ±2 % RH
M1	NO	--	--	--	YES: 73 ±4°F; 50 ±2 % RH
N1	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
O1	NO	--	--	--	YES: 72 ±2°F; 50 ±2 % RH
P1	NO	--	--	--	YES: 73 ±3°F; 50 ±5 % RH
R1	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
T1	NO	--	--	--	YES: 73 ±3°F; 50 ±2 % RH
W1	NO	--	--	--	NO
B2	NO	--	--	--	YES: 0 ±0°F; 0 ±0 % RH
C2	NO	--	--	--	NO
E2	NO	--	--	--	NO
G2	YES	0	0	0	YES: 73 ±2°F; 50 ±2 % RH
H2	NO	--	--	--	YES: 70 ±4°F; 50 ±5 % RH
J2	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
M2	NO	--	--	--	YES: 72 ±3°F; 50 ±2 % RH
P2	NO	--	--	--	YES: 72 ±5°F; 50 ±2 % RH
Q2	NO	--	--	--	YES: 72 ±3°F; 50 ±2 % RH
T2	NO	--	--	--	NO
V2	NO	--	--	--	NO
W2	YES	10	0	0	YES: 72 ±2°F; 50 ±2 % RH
Y2	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
D3	NO	--	--	--	NO
E3	YES	20	0	0	YES: 72 ±2°F; 50 ±2 % RH
I3	NO	--	--	--	NO
J3	NO	--	--	--	YES: 72 ±3°F; 50 ±2 % RH
K3	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
L3	NO	--	--	--	NO
M3	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
N3	NO	--	--	--	YES: 72 ±2°F; 50 ±2 % RH
P3	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
Q3	NO	--	--	--	NO
S3	YES	15	0	0	YES: 73 ±2°F; 50 ±1 % RH
U3	NO	--	--	--	YES: 72 ±3°F; 50 ±2 % RH
V3	NO	--	--	--	NO
W3	NO	--	--	--	YES: 70 ±2°F; 50 ±2 % RH
Y3	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH

TABLE XIX (cont)
Data on Conditioning and Testing Environments
JUL-AUG, SEPT-OCT, NOV-DEC, 1990

	Conditioning Enviroment				Testing Environment
Code	Conditioned Before Testing?	Procedures Min.	Temp°F	R.H.%	Are Quality Samples Tested Under Controlled Conditions Of Temperature and Humidity?
C4	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
G4	NO	--	--	--	YES: 0 ±0°F; 0 ±0 % RH
L4	YES	7	0	0	YES: 72 ±2°F; 50 ±5 % RH
M4	NO	--	--	--	YES: 70 ±4°F; 50 ±5 % RH
N4	NO	--	--	--	YES: 70 ±4°F; 50 ±5 % RH
O4	NO	--	--	--	YES: 73 ±2°F; 50 ±2 % RH
P4	YES	0	0	0	YES: 73 ±2°F; 50 ±2 % RH
Q4	NO	--	--	--	YES: 73 ±4°F; 50 ±2 % RH
T4	NO	--	--	--	YES: 73 ±3°F; 50 ±2 % RH
U4	NO	--	--	--	YES: 72 ±5°F; 50 ±5 % RH
V4	NO	--	--	--	YES: 0 ±0°F; 0 ±0 % RH
W4	YES	10	0	0	YES: 72 ±2°F; 50 ±2 % RH
Z4	YES	60	0	0	YES: 72 ±3°F; 50 ±3 % RH

APPENDIX

NOTES A AND B USED IN TABULATIONS OF MILL DATA

Notes A and B used in the tables of mill data are given below; these notes define the procedure used in calculating adjusted basis weight, machine index, and C.K.P.G. index. It should be stressed that each formula is applicable only to a specific physical property of a specific grade weight of linerboard.

NOTE A: Adjusted basis weight (ABW) = reported weight (RBW) adjusted to moisture content 7.8%:

ABW = RBW [(100 - reported moisture content, %) / (100-7.8)]

NOTE B: Machine index (%) =

[(current machine average / cumulative C.K.P.G. average) * 100]

Where Cumulative C.K.P.G. average =

[Σ CCKPGA's for previous six periods, excluding current CCKPGA / 6]

C.K.P.G. index (%) =

[(current C.K.P.G. average / cumulative C.K.P.G. average) * 100]

Where Current C.K.P.G. average =

[Σ CMA's for current period for all machines / number of machines]

CMA = current machine average for a specific physical property of a specific linerboard grade weight obtained during a given period on a specific machine.

CCKPG = current C.K.P.G. average for a specific physical property of a specific linerboard grade weight obtained during a given period.

THE INSTITUTE OF PAPER SCIENCE
AND TECHNOLOGY

Roger H. Van Eperen
Group Leader
Paper Analysis Group

DeWayne H. Mayo
Senior Technician
Paper Analysis Group

Approved By:

Barry W. Crouse
Director
Research Services Division

IPST HASELTON LIBRARY
5 0602 01060730 9