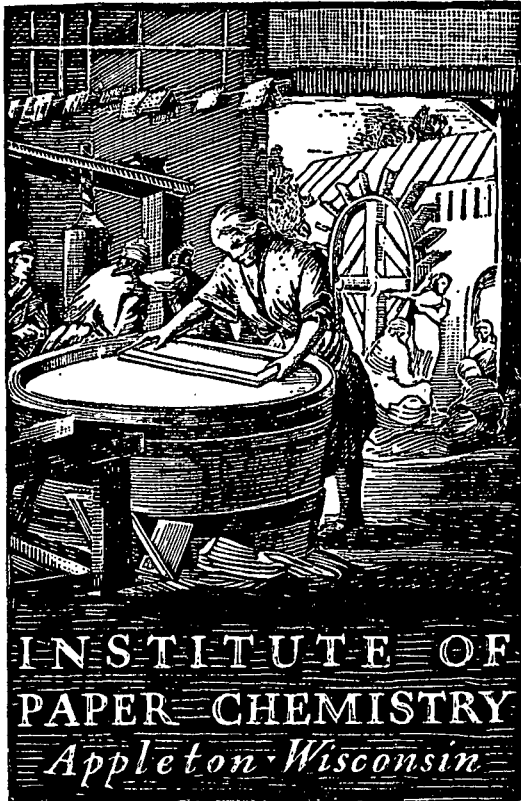


Mr. L...

BASE-LINE

(JANUARY-FEBRUARY, 1969)



CONTINUOUS EVALUATION OF CORRUGATING MEDIUM

(Data for January and February, 1969)

Project 2694-2

Report Twelve

A Progress Report

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

This material is intended only for the internal use of authorized persons within Fourdrinier Kraft Board Institute member companies

March 25, 1969

Code Letters for Progress Report Twelve (44th report-bimonthly); dated March 25, 1969.

<u>Company</u> - <u>Mill</u>		<u>Machine</u> <u>No.</u>	<u>Code</u> <u>Letter</u>	<u>No. of Rolls Submitted</u> <u>for Evaluation During</u> <u>January-February, 1969</u>	
1)	Alton Box Board Company	- Alton	3	S	4
		- Alton	4	AA	4
2)	Container Corporation of America	- Circleville	5	A	4
3)	Continental Can Co., Inc.	- Hodge	1	W	2
		- Hopewell	1	B	3
4)	Crown Zellerbach Corporation	- Baltimore	1	E	4
		- Baltimore	2	T	4
		- Bogalusa	4	CC	2
5)	Great Northern Paper Company	- Cedar Springs	3	HH	2
6)	Hoerner Waldorf Corporation	- Ontonagon	1	V	4
		- St. Paul	4	Q	2
		- St. Paul	5	D	2
7)	International Paper Company	- Bastrop	1	G	4
		- Bastrop	2	EE	4
		- Georgetown	1	M	4
8)	The Mead Corporation	- Harriman	1	X	4
		- Lynchburg	2	K	4
		- Sylva	1	U	4
		- Sylva	2	H	4
9)	Olinkraft, Inc.	- West Monroe	2	GG	2
10)	Owens-Illinois, Inc.	- Big Island	1	C	4
		- Big Island	3	BB	3
		- Tomahawk	1	O	4
		- Tomahawk	2	Z	4
		- Tomahawk	3	DD	4
11)	Packaging Corp. of America	- Filer City	1	L	4
		- Filer City	2	Y	4
12)	Union Camp Corporation	- Savannah	2	I	4
13)	Westvaco	- Covington	6	N	4
		- Covington	7	FF	1
		- Williamsburg	1	R	4
		- Williamsburg	2	F	4
14)	Weyerhaeuser Company	- Longview	4	P	2
		- Plymouth	3	J	4
Total Active Machines:		34			117

Nonparticipants in current report:

- | | |
|---------------------------------|----------------------------|
| 1) The Chesapeake Corporation | - West Point No. 1 |
| 2) Crown Zellerbach Corporation | - Lebanon No. 2 |
| 3) The Mead Corporation | - Knoxville No. 1 |
| 4) Olinkraft, Inc. | - West Monroe No. 1; No. 3 |
| 5) St. Joe Paper Company | - Port St. Joe No. 1 |
| 6) St. Regis Paper Company | - Coshocton No. 1 |
| 7) Union Camp Corporation | - Monroe No. 2 |

Total Inactive Machines: 8

Nonparticipants in program:

- 1) Georgia-Pacific Corporation
- 2) Western Kraft Corporation

GS/mkm

BASE-LINE
(January-February, 1969)

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS EVALUATION OF CORRUGATING MEDIUM

(Data for January and February, 1969)

Project 2694-2

Report Twelve

A Progress Report

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

This material is intended only for the internal use
of authorized persons within Fourdrinier Kraft Board
Institute member companies

March 25, 1969

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS EVALUATION OF CORRUGATING MEDIUM (Data for January and February, 1969)

SUMMARY

PART I. GENERAL

A. Participation Data:

	Current Period	Previous Period
Period	Jan.-Feb., 1969	Nov.-Dec., 1968
Number of machines	34	35
Number of rolls	117	121

B. Distribution of Mediums by Type:

Semichemical	32	32
Bogus	2	2
Kraft	0	1

C. New Participants:

None

None

D. Nonparticipants:

1. Chesapeake (West Point No. 1)	1. Chesapeake (West Point).
2. Crown Zellerbach (Lebanon No. 2)	2. Olinkraft (W. Monroe No. 1 and 3)
3. The Mead Corp. (Knoxville No. 1)	3. Owens-Ill., Inc. (Big Island No. 1 and 3)
4. Olinkraft, Inc. (W. Monroe No. 1 & 3)	4. St. Regis (Coshocton No. 1)
5. St. Joe Paper Co. (Port St. Joe No. 1)	5. Union Camp (Monroe No. 2)
6. St. Regis Paper Co. (Coshocton No. 1)	
7. Union Camp Corp. (Monroe No. 2)	

PART II. QUALITY DATA

A. Summary of Physical Test Data

Test	Report	Current Machine Averages		F.K.I. Averages	
		Max.	Min.	Current	Cumulative
Basis weight, lb./1000 ft. ²	Cur.	28.6	26.0	27.0	27.0
	Prev.	29.0	25.0	26.9	27.0
Caliper, pt.	Cur.	12.1	9.5	10.5	10.4
	Prev.	11.5	9.0	10.3	10.4
Concora flat crush, p.s.i.	Cur.	49.1	37.2	42.8	42.9
	Prev.	51.8	36.4	42.5	43.0
Single-face flat crush, p.s.i.	Cur.	37.6	27.1	31.6	32.3
	Prev.	39.3	27.3	31.6	32.7

B. Summary of Runnability Data

Runnability		Current Period			Previous Period		
Speed, f.p.m.	Tension, lb./in.	No. of Rolls	% of Total	Cum., %	No of Rolls	% of Total	Cum., %
<600	Min.	8	6.8	100.0	6	5.0	100.0
600	Min.	5	4.3	93.2	9	7.4	95.0
600	1/2	3	2.6	88.9	25	20.7	87.6
600	1	16	13.7	86.3	20	16.5	66.9
600	1-1/2	85	72.6	72.6	61	50.4	50.4

C. Trends in Quality Data in Current Report With Reference to Data from Previous Report

Physical Tests:

Basis weight: Increased from 26.9 to 27.0 lb/M. ft.²
 Caliper: Increased from 10.3 to 10.5 pt.
 Concora flat crush: Increased from 42.5 to 42.8 p.s.i.
 Single-face flat crush: Same as previous report

Comment: It may be noted that only minor quality changes are indicated for all four physical tests.

Runnability:

<600 f.p.m. at minimum tension: Increased from 5.0 to 6.8%
 600 f.p.m. at minimum tension: Decreased from 7.4 to 4.3%
 600 f.p.m. at 1/2 lb./in. tension: Decreased from 20.7 to 2.6%
 600 f.p.m. at 1 lb./in. tension: Decreased from 16.5 to 13.7%
 600 f.p.m. at 1-1/2 lb./in. tension: Increased from 50.4 to 72.6%

Comment: Significant changes in runnability were noted at the following levels:

Level	Change
600 f.p.m. at 1/2 lb./in. tension	Significant decrease
600 f.p.m. at 1-1/2 lb./in. tension	Significant increase

PART III. CONCORA CALIBRATION DATA

A. Summary of Data (Number and Percentage of Machines Included Within the Indicated Ranges)

Range, %	Current Period		Previous Period	
	No. of Machines	% of Total	No. of Machines	% of Total
<u>±</u> 1.0	6	24.0	5	20.0
<u>±</u> 2.5	8	32.0	10	40.0
<u>±</u> 5.0	15	60.0	15	60.0
<u>±</u> 10.0	24	96.0	24	96.0
Max.	25	100.0 ^a	25	100.0 ^b

B. Significance of Calibration Data

The current level of agreement between Institute and mill Concora flat crush data compares favorably with that for the previous report.

^aMaximum percentage difference was -15.0.

^bMaximum percentage difference was -10.6.

INTRODUCTION

As requested by the Technical Division of the Fourdrinier Kraft Board Institute, Inc., the reports pertinent to the continuous evaluation of corrugating medium have been prepared by The Institute of Paper Chemistry on a bimonthly instead of monthly basis since August 1, 1961. The current report summarizes the data obtained during January and February, 1969, on 117 rolls of corrugating medium submitted for evaluation from thirty-four machines.

Each roll was evaluated at the Institute for basis weight, caliper, Concora flat crush (tested immediately after fluting), H. and D. flat crush on single-faced board, and runnability. The reader's attention is directed to the fact that the current base-line report is the sixth one in which Concora flat crush results were obtained on specimens tested immediately after fluting. Runnability was evaluated by corrugating each roll under standardized conditions on the Institute's single-facer into A-flute board at 600 feet per minute with minimum tension and recording the draw factor at this speed and tension if the roll ran satisfactorily. If unsatisfactory runnability occurred at this speed and tension, the single-facer was slowed down in increments of 25 f.p.m. using minimum tension until satisfactory runnability was obtained, i.e., until there was no visual evidence of fractured flutes. In this latter case the draw factor was recorded for the highest speed below 600 f.p.m. (with minimum tension) at which the roll ran satisfactorily. On the other hand, if initial fabrication of the roll was satisfactory at 600 f.p.m. with minimum tension, further runs were made at 600 f.p.m. using higher tension to determine the maximum tension at 600 f.p.m. which the medium could sustain without visual evidence of fracturing. The higher tensions used at 600 f.p.m. were 0.5, 1.0, and 1.5 lb./inch. For each roll, flat crush was

determined on the single-faced board obtained at a speed of 600 f.p.m. with minimum tension, or if the roll could not be corrugated satisfactorily at 600 f.p.m. with minimum tension, flat crush was determined on the single-faced board obtained at the highest speed below 600 f.p.m. at which the medium could be corrugated with minimum tension. The flat crush results on the single-faced board, in addition to supplying information about quality, also provide data which may be useful to each participant as a means of evaluating the nature of the quantitative relationship between Concora flat crush and combined board flat crush for his medium.

For each participating machine, test data for the current period are shown in Table I and presented graphically in Fig. 1 and 2. A tabulation of the number of rolls and type of medium evaluated is also given in Table I for each machine. The current machine test averages given in Table I are the means for each test property of the averages obtained on all rolls of corrugating medium evaluated from a given machine during the current period. In addition to the current machine test averages, Table I also presents current F.K.I. averages, cumulative F.K.I. averages, and F.K.I. indexes. The current F.K.I. average for each test property is the mean of the current machine averages for the same property for all machines participating in the study during a given period. The cumulative F.K.I. average for a given test property is the mean of the current F.K.I. averages for the same property for the previous twelve-month period excluding the average for the current period. The F.K.I. index for each test property is obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

TABLE I
SUMMARY OF CURRENT MACHINE AVERAGES
JANUARY AND FEBRUARY, 1969

MILL CODE	NO. OF ROLLS	TYPE OF MEDIUM	BASIS WEIGHT, LB.	CALIPER, POINTS	CONCORA FLAT CRUSH, P.S.I.	SINGLE-FACE FLAT CRUSH, P.S.I.
A	4	SEMICHEMICAL	26.0	10.3	39.0	29.2
B	3	SEMICHEMICAL	27.3	10.4	44.4	31.6
C	4	SEMICHEMICAL	27.0	10.7	45.3	34.6
D	2	SEMICHEMICAL	26.4	9.6	43.2	31.4
E	4	BOGUS	27.1	10.0	41.3	30.7
F	4	SEMICHEMICAL	27.2	10.0	43.7	30.8
G	4	SEMICHEMICAL	27.1	10.8	47.8	37.6
H	4	SEMICHEMICAL	26.0	10.2	39.6	30.1
I	4	SEMICHEMICAL	26.1	9.9	41.8	31.3
J	4	SEMICHEMICAL	26.5	10.7	46.2	33.4
K	4	SEMICHEMICAL	26.8	10.4	44.0	32.4
L	4	SEMICHEMICAL	26.9	9.7	40.0	29.1
M	4	SEMICHEMICAL	28.6	10.7	47.6	36.2
N	4	SEMICHEMICAL	26.2	11.1	43.7	31.9
O	4	SEMICHEMICAL	26.8	9.9	43.4	32.1
P	2	SEMICHEMICAL	27.0	9.8	41.8	32.4
Q	2	SEMICHEMICAL	27.6	11.1	42.8	29.0
R	4	SEMICHEMICAL	27.4	9.5	43.9	31.3
S	4	SEMICHEMICAL	28.5	11.4	40.0	29.4
T	4	BOGUS	26.7	10.1	40.8	30.8
U	4	SEMICHEMICAL	27.0	10.1	40.4	30.2
V	4	SEMICHEMICAL	27.6	12.1	39.7	27.1
W	2	SEMICHEMICAL	27.6	9.8	46.8	36.2
X	4	SEMICHEMICAL	27.0	10.9	42.1	29.5
Y	4	SEMICHEMICAL	26.6	10.0	40.8	29.8
Z	4	SEMICHEMICAL	26.6	10.3	44.2	31.2
AA	4	SEMICHEMICAL	28.1	11.4	37.2	28.2
BB	3	SEMICHEMICAL	27.7	11.4	45.3	32.9
CC	2	SEMICHEMICAL	27.9	10.0	39.0	30.4
DD	4	SEMICHEMICAL	27.3	10.6	44.2	31.3
EE	4	SEMICHEMICAL	26.2	10.2	45.4	34.0
FF	1	SEMICHEMICAL	27.2	11.7	38.3	28.7
GG	2	SEMICHEMICAL	26.6	11.0	43.0	33.7
HH	2	SEMICHEMICAL	26.1	11.0	49.1	35.5
TOTAL		117				
CURRENT F.K.I. AVERAGE			27.0	10.5	42.8	31.6
CUMULATIVE F.K.I. AVERAGE			27.0	10.4	42.9	32.3
F.K.I. INDEX, PERCENT			100.0	101.0	99.8	97.8

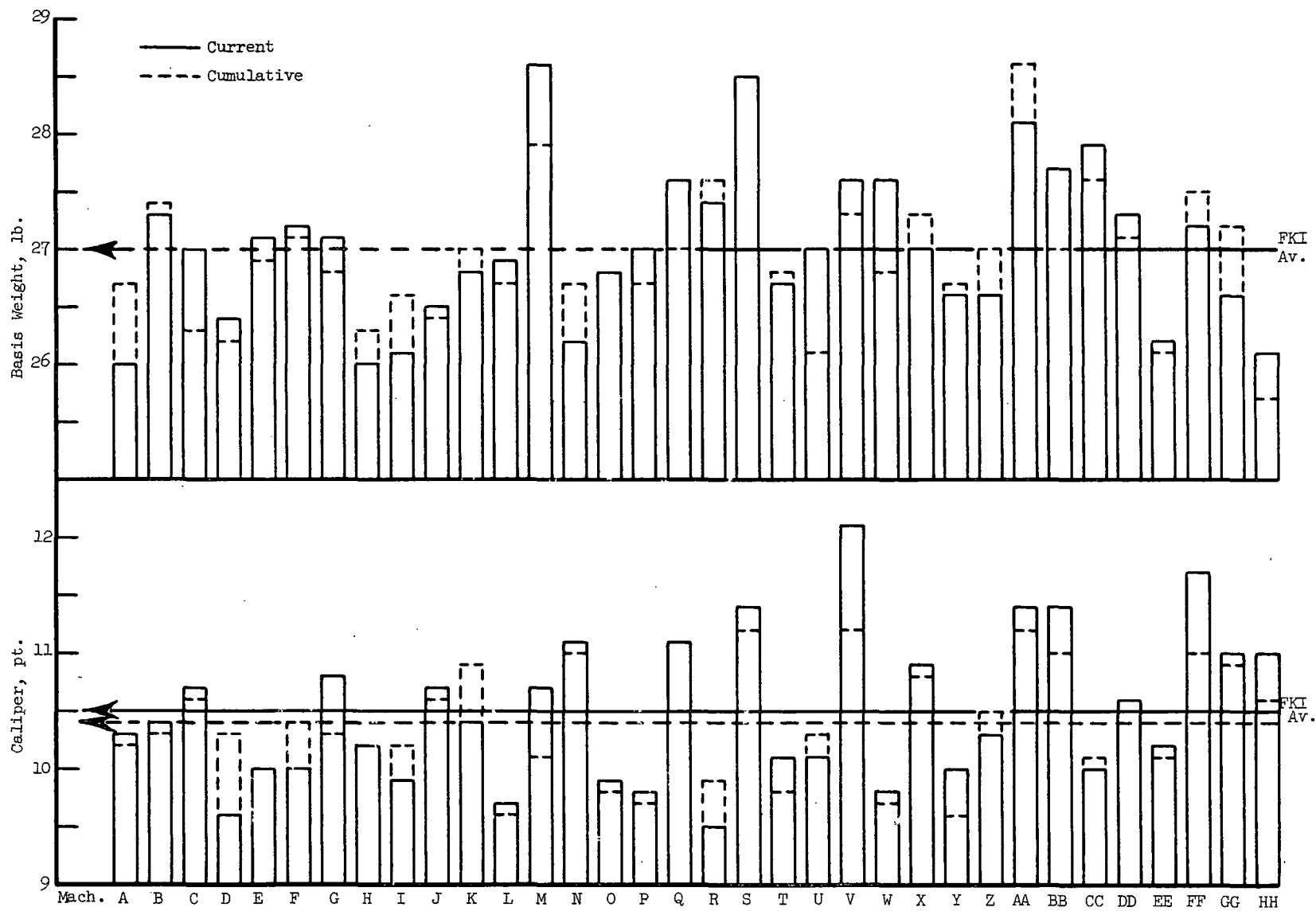


Figure 1. Comparison of Basis Weight and Caliper Results

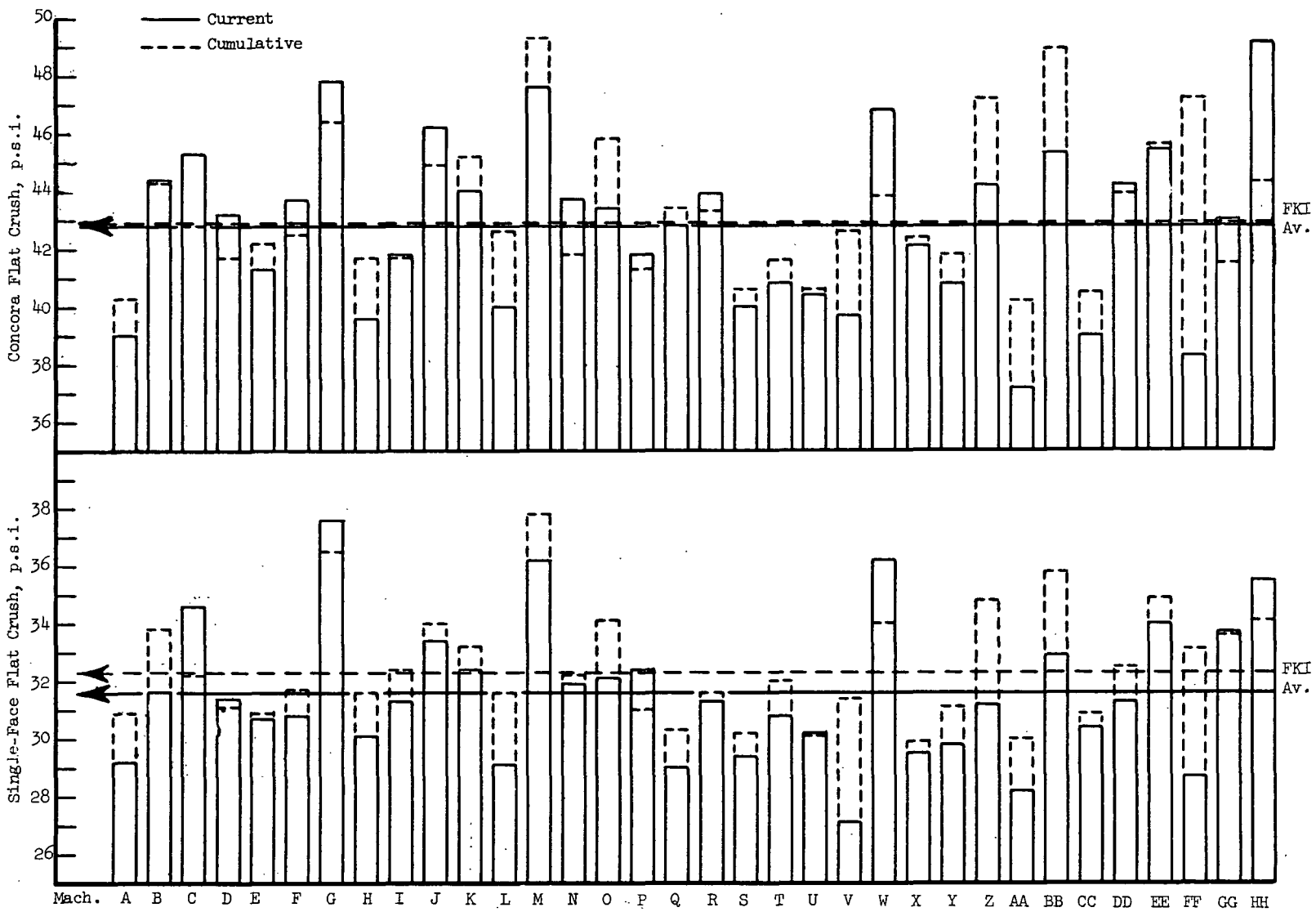


Figure 2. Comparison of Concora and Single-Face Flat Crush Results

The F.K.I. index for each test property provides a convenient means of comparing current average quality with corresponding average quality for the previous six periods. An index greater than 100% indicates, of course, that current average quality is higher than the corresponding average quality for the previous six periods; similarly an index below 100% indicates that current average quality is lower than the corresponding average quality for the previous six periods.

The test results obtained on the rolls submitted from the production of individual machines during the current period are shown in Tables II through XXXV for Machines A through Z and Machines AA, BB, CC, DD, EE, FF, GG, and HH, respectively. For each machine, the maximum, minimum, and average results obtained on each roll are shown for all test properties except basis weight for which only the average is shown; in addition, the overall average result for all rolls submitted from a given machine is shown for each test property. The latter overall averages are reported as "current machine averages." A cumulative machine average for each test property is also shown and represents the mean of the current machine averages for the same property for the previous six periods (excluding the current period). Also shown for each machine and for each test property in Tables II to XXXV are a machine factor and machine index which are defined as follows:

$$\frac{\text{current machine average}}{\text{cumulative machine average}} \times 100 = \text{machine factor (\%)}$$

$$\frac{\text{current machine average}}{\text{cumulative F.K.I. average}} \times 100 = \text{machine index (\%)}$$

The machine factor and machine index provide a convenient means for comparing the current machine average for each test property with either the previous results obtained on the same machine for the same test property or with the cumulative result for all machines - i.e., the cumulative F.K.I. average for the same test property.

TABLE II

SUMMARY OF TEST RESULTS FOR MACHINE A
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	DRAW FACTOR*B
A-1	1-29-69	189	26.1	10.7	10.0	10.2	43.2	38.4	40.6	30.0	29.0	29.6	1.5	1.573
A-2	1-29-69	190	26.1	10.8	10.1	10.5	43.2	38.4	40.3	29.8	28.2	28.8	1.5	1.574
A-3	1-29-69	191	25.8	10.7	10.0	10.3	37.8	34.2	35.8	28.8	26.6	27.4	1.5	1.574
A-4	1-29-69	192	26.2	10.7	10.1	10.3	42.0	36.0	39.2	32.4	30.0	30.9	1.5	1.575
CURRENT MACHINE AVERAGE			26.0			10.3			39.0			29.2		1.574
CUMULATIVE MACHINE AVERAGE			26.7			10.2			40.3			30.9		
MACHINE FACTOR, PERCENT			97.4			101.0			96.8			94.5		
MACHINE INDEX, PERCENT			96.3			99.0			90.9			90.4		

A Maximum tension at 600 f.p.m.

B 600 f.p.m. minimum tension

TABLE III

SUMMARY OF TEST RESULTS FOR MACHINE B
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

B-1	11-27-68	655	27.0	10.9	10.0	10.4	48.6	38.4	42.6	33.2	29.0	31.1	1.5	1.574
B-2	12- 9-68	656	27.5	10.6	10.0	10.3	49.2	40.8	45.0	34.0	32.0	33.0	1.5	1.573
B-3	12-18-68	657	27.3	10.9	10.0	10.5	47.4	43.2	45.5	33.0	28.6	30.7	1.5	1.575
CURRENT MACHINE AVERAGE			27.3			10.4			44.4			31.6		1.574
CUMULATIVE MACHINE AVERAGE			27.4			10.3			44.3			33.8		
MACHINE FACTOR, PERCENT			99.6			101.0			100.2			93.5		
MACHINE INDEX, PERCENT			101.1			100.0			103.5			97.8		

TABLE IV

SUMMARY OF TEST RESULTS FOR MACHINE C
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	DRAW FACTOR*B
C-1	11- 7-68	605	27.2	11.0	10.0	10.5	47.4	41.4	45.0	35.6	34.4	35.1	1.0	1.567
C-2	11-12-68	1009	27.1	11.2	10.8	11.0	49.2	45.0	46.7	34.8	32.0	33.3	1.5	1.567
C-3	11-27-68	2603	26.9	10.9	10.0	10.5	48.6	39.6	44.2	36.6	34.0	35.3	1.5	1.569
C-4	12-13-68	1341	26.8	11.0	10.5	10.8	49.8	41.4	45.2	35.6	34.0	34.9	1.5	1.566
CURRENT MACHINE AVERAGE			27.0			10.7			45.3			34.6		1.567
CUMULATIVE MACHINE AVERAGE			26.3			10.6			42.8			32.2		
MACHINE FACTOR, PERCENT			102.7			100.9			105.8			107.4		
MACHINE INDEX, PERCENT			100.0			102.9			105.6			107.1		

TABLE V

SUMMARY OF TEST RESULTS FOR MACHINE D
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

D-1	1-10-69	3202	26.7	10.0	9.0	9.3	46.8	42.0	44.2	34.4	31.0	32.2	1.5	1.573
D-2	2- 8-69	3162	26.2	10.2	9.6	10.0	46.8	39.0	42.2	31.8	29.8	30.6	1.5	1.574
CURRENT MACHINE AVERAGE			26.4			9.6			43.2			31.4		1.574
CUMULATIVE MACHINE AVERAGE			26.2			10.3			41.7			31.1		
MACHINE FACTOR, PERCENT			100.8			93.2			103.6			101.0		
MACHINE INDEX, PERCENT			97.8			92.3			100.7			97.2		

* See Table II for Notes A and B.

TABLE VI

SUMMARY OF TEST RESULTS FOR MACHINE E
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- BOGUS

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR*B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
E-1	12- 9-68	420	27.6	10.2	9.8	10.0	40.2	32.4	36.6	30.0	27.4	28.4	1.5	1.576
E-2	12-23-68	421	26.5	10.1	9.2	9.6	46.8	43.2	44.9	35.0	33.2	34.4	1.5	1.574
E-3	1-10-69	422	26.8	10.2	9.3	10.0	43.8	37.2	40.9	31.4	27.8	29.0	1.5	1.575
E-4	1-29-69	423	27.6	11.0	10.0	10.5	44.4	38.4	42.8	33.2	28.2	30.9	1.5	1.569
CURRENT MACHINE AVERAGE			27.1			10.0			41.3			30.7		1.574
CUMULATIVE MACHINE AVERAGE			26.9			10.0			42.2			30.9		
MACHINE FACTOR, PERCENT			100.7			100.0			97.9			99.4		
MACHINE INDEX, PERCENT			100.4			96.2			96.3			95.0		

TABLE VII

SUMMARY OF TEST RESULTS FOR MACHINE F
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

F-1	12-17-68	225	27.4	10.0	9.2	9.8	45.6	40.2	42.8	32.4	29.4	30.5	1.5	1.566
F-2	1- 2-69	226	26.9	10.2	9.9	10.0	46.8	40.8	44.3	32.8	29.4	31.5	1.0	1.560
F-3	1-29-69	229	26.9	10.5	10.0	10.1	48.6	41.4	44.4	31.6	29.0	30.8	1.5	1.563
F-4	1-31-69	230	27.6	10.0	9.8	9.9	46.2	40.8	43.3	31.8	28.4	30.6	1.0	1.563
CURRENT MACHINE AVERAGE			27.2			10.0			43.7			30.8		1.563
CUMULATIVE MACHINE AVERAGE			27.1			10.4			42.5			31.7		
MACHINE FACTOR, PERCENT			100.4			96.2			102.8			97.2		
MACHINE INDEX, PERCENT			100.7			96.2			101.9			95.4		

* See Table II for Notes A and B.

TABLE VIII

SUMMARY OF TEST RESULTS FOR MACHINE G
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY DRAW	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	FACTOR*8
G-1	12-12-68	818	27.2	11.7	10.7	11.0	49.2	42.6	47.0	37.2	35.4	36.7	1.0	1.554
G-2	12-16-68	819	27.1	11.3	10.8	11.0	52.2	45.6	49.6	39.6	37.4	38.2	1.0	1.562
G-3	12-16-68	820	27.2	11.5	10.7	11.0	51.0	45.6	48.8	41.2	37.6	39.5	1.5	1.565
G-4	1- 6-69	821	26.8	11.1	9.8	10.4	49.2	42.0	46.0	37.0	34.2	36.0	1.5	1.556
CURRENT MACHINE AVERAGE			27.1			10.8			47.8			37.6		1.559
CUMULATIVE MACHINE AVERAGE			26.8			10.3			46.4			36.5		
MACHINE FACTOR, PERCENT			101.1			104.8			103.0			103.0		
MACHINE INDEX, PERCENT			100.4			103.8			111.4			116.4		

TABLE IX

SUMMARY OF TEST RESULTS FOR MACHINE H
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

H-1	12-18-68	36	25.0	10.1	9.0	9.7	42.0	32.4	36.7	30.8	28.0	28.9	1.5	1.567
H-2	1- 1-69	38	27.1	11.1	10.5	11.0	44.4	38.4	42.4	31.8	29.2	30.2	1.5	1.566
H-3	1-15-69	40	26.1	10.9	9.9	10.2	44.4	33.6	40.6	31.6	29.2	30.2	1.5	1.570
H-4	1-29-69	42	25.8	10.0	9.1	9.7	42.6	36.0	38.9	31.6	30.6	31.0	1.5	1.570
CURRENT MACHINE AVERAGE			26.0			10.2			39.6			30.1		1.568
CUMULATIVE MACHINE AVERAGE			26.3			10.2			41.7			31.6		
MACHINE FACTOR, PERCENT			98.8			100.0			95.0			95.2		
MACHINE INDEX, PERCENT			96.3			98.1			92.3			93.2		

* See Table II for Notes A and B.

TABLE X

SUMMARY OF TEST RESULTS FOR MACHINE I

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY DRAW	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	FACTOR* _B
I-1	12-16-68	795	26.3	10.0	9.0	9.5	45.6	41.4	43.7	33.2	32.0	32.6	1.5	1.575
I-2	1-12-69	796	26.6	10.1	9.0	9.8	45.6	40.8	43.2	31.2	28.4	29.9	1.5	1.572
I-3	1-19-69	797	25.4	11.2	10.0	10.7	40.8	34.2	38.2	31.0	27.6	29.3	1.5	1.562
I-4	2- 4-69	798	26.2	10.0	9.1	9.7	43.2	39.6	42.1	35.0	32.2	33.4	1.5	1.570
CURRENT MACHINE AVERAGE			26.1			9.9			41.8			31.3		1.570
CUMULATIVE MACHINE AVERAGE			26.6			10.2			41.7			32.4		
MACHINE FACTOR, PERCENT			98.1			97.0			100.2			96.6		
MACHINE INDEX, PERCENT			96.7			95.2			97.4			96.9		

TABLE XI

SUMMARY OF TEST RESULTS FOR MACHINE J

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

J-1	11-29-68	3487	26.6	11.0	10.5	10.7	48.0	42.6	44.8	32.4	30.8	31.4	NOTE C	1.546
J-2	12- 2-68	3602	26.9	10.8	10.2	10.5	54.6	47.4	50.3	36.2	33.8	34.9	NOTE D	1.540
J-3	12- 9-68	3841	25.9	11.0	10.0	10.5	51.0	42.0	45.7	35.0	32.2	33.2	NOTE E	1.550
J-4	12-10-68	3877	26.7	11.5	10.5	11.0	51.0	39.0	43.8	35.2	33.0	33.9	NOTE F	1.547
CURRENT MACHINE AVERAGE			26.5			10.7			46.2			33.4		1.546
CUMULATIVE MACHINE AVERAGE			26.4			10.6			44.9			34.0		
MACHINE FACTOR, PERCENT			100.4			100.9			102.9			98.2		
MACHINE INDEX, PERCENT			98.1			102.9			107.7			103.4		

* See Table II for Notes A and B.

C Maximum speed at which this roll could be corrugated with minimum tension was 325 f.p.m.

D Maximum speed at which this roll could be corrugated with minimum tension was 250 f.p.m.

E Maximum speed at which this roll could be corrugated with minimum tension was 300 f.p.m.

F Maximum speed at which this roll could be corrugated with minimum tension was 500 f.p.m.

TABLE XII

SUMMARY OF TEST RESULTS FOR MACHINE K

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR*B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
K-1	12-27-68	10	27.0	11.0	10.2	10.6	44.4	42.6	43.2	33.2	31.8	32.3	1.5	1.570
K-2	12-27-68	11	26.2	10.8	10.1	10.3	45.6	37.2	42.0	32.4	29.4	31.1	1.5	1.574
K-3	12-27-68	12	26.5	11.0	10.1	10.7	48.0	42.0	44.3	31.8	29.2	30.3	1.5	1.572
K-4	1-31-69	13	27.7	10.1	9.3	9.8	49.8	44.4	46.6	36.6	35.4	35.8	1.5	1.569
CURRENT MACHINE AVERAGE			26.8			10.4			44.0			32.4		1.571
CUMULATIVE MACHINE AVERAGE			27.0			10.9			45.2			33.2		
MACHINE FACTOR, PERCENT			99.2			95.4			97.3			97.6		
MACHINE INDEX, PERCENT			99.2			100.0			102.6			100.3		

TABLE XIII

SUMMARY OF TEST RESULTS FOR MACHINE L

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

L-1	12-18-68	324	27.5	9.9	9.0	9.6	45.6	37.8	42.4	33.8	32.0	33.0	1.5	1.569
L-2	1- 4-69	325	26.8	10.0	9.2	9.8	42.6	37.2	40.2	29.6	27.2	28.0	1.5	1.574
L-3	1-24-69	326	26.0	9.9	9.1	9.4	40.2	35.4	37.2	29.6	26.8	27.9	1.5	1.573
L-4	2- 3-69	327	27.2	10.3	10.0	10.1	41.4	39.0	40.2	28.2	26.6	27.4	1.5	1.573
CURRENT MACHINE AVERAGE			26.9			9.7			40.0			29.1		1.572
CUMULATIVE MACHINE AVERAGE			26.7			9.6			42.6			31.6		
MACHINE FACTOR, PERCENT			100.7			101.0			93.9			92.1		
MACHINE INDEX, PERCENT			99.6			93.3			93.2			90.1		

* See Table II for Notes A and B.

TABLE XIV

SUMMARY OF TEST RESULTS FOR MACHINE M

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY DRAW	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	FACTOR*B
M-1	11-13-68	694	28.5	10.1	9.9	10.0	56.4	51.0	53.3	42.0	37.8	40.2	1.5	1.575
M-2	11-28-68	695	29.2	11.6	10.5	11.0	49.2	43.2	45.2	36.0	33.8	35.0	1.5	1.575
M-3	12-10-68	696	28.2	11.2	10.5	10.9	46.2	43.2	45.2	38.0	33.8	35.4	1.5	1.566
M-4	12-20-68	697	28.4	11.0	10.5	10.9	51.6	42.0	46.7	35.4	32.6	34.0	1.5	1.569
CURRENT MACHINE AVERAGE			28.6			10.7			47.6			36.2		1.571
CUMULATIVE MACHINE AVERAGE			27.9			10.1			49.3			37.8		
MACHINE FACTOR, PERCENT			102.5			105.9			96.6			95.8		
MACHINE INDEX, PERCENT			105.9			102.9			111.0			112.1		

TABLE XV

SUMMARY OF TEST RESULTS FOR MACHINE N

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

N-1	12- 7-68	118	26.5	11.1	10.0	10.6	47.4	43.2	45.0	33.2	27.2	30.3	0.5	1.560
N-2	12-22-68	119	27.1	12.2	11.1	11.7	48.0	41.4	45.1	34.2	32.4	33.2	MIN.	1.558
N-3	1-29-69	120	25.7	11.2	10.5	11.0	44.4	40.2	42.6	33.6	31.0	32.6	1.0	1.562
N-4	1-29-69	121	25.7	11.8	10.8	11.1	45.0	37.2	42.0	33.4	30.4	31.5	1.0	1.566
CURRENT MACHINE AVERAGE			26.2			11.1			43.7			31.9		1.562
CUMULATIVE MACHINE AVERAGE			26.7			11.0			41.8			32.2		
MACHINE FACTOR, PERCENT			98.1			100.9			104.5			99.1		
MACHINE INDEX, PERCENT			97.0			106.7			101.9			98.8		

* See Table II for Notes A and B.

TABLE XVI

SUMMARY OF TEST RESULTS FOR MACHINE O

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR*B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
O-1	1-19-69		27.1	10.1	9.8	10.0	46.2	41.4	44.2	33.4	29.8	32.2	1.5	1.568
O-2	1-20-69		27.2	10.1	9.4	9.9	47.4	41.4	44.4	33.0	29.6	32.1	1.5	1.568
O-3	1-21-69		26.3	10.0	9.3	9.9	44.4	41.4	42.4	33.6	30.2	31.8	1.5	1.568
O-4	1-22-69		26.4	10.0	9.2	9.9	46.2	39.6	42.6	33.0	31.6	32.2	1.5	1.566
CURRENT MACHINE AVERAGE			26.8			9.9			43.4			32.1		1.568
CUMULATIVE MACHINE AVERAGE			26.8			9.8			45.8			34.1		
MACHINE FACTOR, PERCENT			100.0			101.0			94.8			94.1		
MACHINE INDEX, PERCENT			99.2			95.2			101.2			99.4		

TABLE XVII

SUMMARY OF TEST RESULTS FOR MACHINE P

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

P-1	12-21-68	3515	27.6	10.1	9.0	9.8	49.2	41.4	45.6	33.8	32.4	33.2	1.0	1.569
P-2	1- 1-69	3723	26.3	10.0	9.4	9.8	40.8	35.4	37.9	32.4	30.8	31.6	MIN.	1.555
CURRENT MACHINE AVERAGE			27.0			9.8			41.8			32.4		1.562
CUMULATIVE MACHINE AVERAGE			26.7			9.7			41.3			31.0		
MACHINE FACTOR, PERCENT			101.1			101.0			101.2			104.5		
MACHINE INDEX, PERCENT			100.0			94.2			97.4			100.3		

* See Table II for Notes A and B.

TABLE XVIII
SUMMARY OF TEST RESULTS FOR MACHINE Q
JANUARY AND FEBRUARY, 1969
TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE	MILL	BASIS WT., LB./M.	SQ. FT.	MAX. MIN. AV.	CONCORA FLAT CRUSH, P.S.I.	MAX. MIN. AV.	SINGLE-FACE FLAT CRUSH, P.S.I.	MAX. MIN. AV.	RUNNABILITY DRAW LB./IN.*A FACTOR*8
Q-1	1-9-69	2352	27.9	12.4	11.5	11.9	45.0	37.2	29.0	1.571
Q-2	2-9-69	3632	27.4	10.9	10.0	10.3	46.8	40.8	32.0	1.572
CURRENT MACHINE AVERAGE										
27.6										
CUMULATIVE MACHINE AVERAGE										
27.0										
MACHINE FACTOR, PERCENT										
102.2										
MACHINE INDEX, PERCENT										
102.2										
106.7										
11.1										
11.1										
43.4										
98.6										
99.8										
29.0										
30.3										
95.7										
89.8										

1.572

TABLE XIX
SUMMARY OF TEST RESULTS FOR MACHINE R
JANUARY AND FEBRUARY, 1969
TYPE OF MEDIUM- SEMICHEMICAL

R-1	12-10-68	223	27.0	10.2	10.0	10.1	44.4	39.6	30.4	1.5	1.560
R-2	12-20-68	224	27.7	9.5	9.0	9.2	50.4	44.4	34.0	1.5	1.563
R-3	1-12-69	227	26.7	9.5	8.9	9.2	44.4	40.2	32.6	1.5	1.501
R-4	1-27-69	228	28.0	9.9	9.1	9.5	45.6	41.4	33.6	1.5	1.570
CURRENT MACHINE AVERAGE											
27.4											
CUMULATIVE MACHINE AVERAGE											
27.6											
MACHINE FACTOR, PERCENT											
99.3											
MACHINE INDEX, PERCENT											
101.5											
9.5											
9.9											
43.3											
101.4											
102.3											
31.3											
96.9											
1.564											

* See Table II for Notes A and B.

TABLE XX

SUMMARY OF TEST RESULTS FOR MACHINE S

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY DRAW	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	FACTOR*B
S-1	12- 3-68	3641	28.4	12.4	11.9	12.1	42.6	37.2	40.0	31.4	29.6	30.3	1.5	1.564
S-2	12-13-68	3361	30.8	11.3	11.0	11.2	45.6	37.8	41.8	33.2	29.4	31.2	1.5	1.568
S-3	1-18-69	309	27.4	11.9	11.0	11.3	42.6	37.2	39.4	29.4	26.6	28.3	1.5	1.572
S-4	1-25-69	306	27.4	11.3	10.8	11.0	42.0	36.0	38.6	28.6	26.4	28.0	1.5	1.573
CURRENT MACHINE AVERAGE			28.5			11.4			40.0			29.4		1.569
CUMULATIVE MACHINE AVERAGE			28.5			11.2			40.6			30.2		
MACHINE FACTOR, PERCENT			100.0			101.8			98.5			97.4		
MACHINE INDEX, PERCENT			105.6			109.6			93.2			91.0		

TABLE XXI

SUMMARY OF TEST RESULTS FOR MACHINE T

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- BOGUS

T-1	12-10-68	520	26.8	10.2	8.7	9.4	45.6	42.0	44.4	33.8	30.6	32.5	1.5	1.566
T-2	12-23-68	521	26.3	10.4	9.0	9.9	46.2	37.8	41.0	33.4	30.6	32.5	1.5	1.570
T-3	1-10-69	522	26.8	10.9	10.0	10.4	43.8	37.2	40.4	31.0	28.2	29.7	1.5	1.572
T-4	1-27-69	523	26.8	11.0	10.0	10.8	39.0	36.0	37.6	29.8	27.4	28.7	1.5	1.573
CURRENT MACHINE AVERAGE			26.7			10.1			40.8			30.8		1.570
CUMULATIVE MACHINE AVERAGE			26.8			9.8			41.6			32.0		
MACHINE FACTOR, PERCENT			99.6			103.1			98.1			96.2		
MACHINE INDEX, PERCENT			98.9			97.1			95.1			95.4		

*See Table II for Notes A and B.

TABLE XXII

SUMMARY OF TEST RESULTS FOR MACHINE U
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	DRAW FACTOR*B
U-1	12-19-68	35	27.3	10.5	10.0	10.2	43.8	36.6	40.8	32.0	29.6	30.9	1.5	1.571
U-2	1- 1-69	37	27.1	11.0	10.0	10.4	42.6	37.2	39.6	29.0	26.6	28.0	1.5	1.565
U-3	1-14-69	39	26.9	10.1	8.9	9.6	40.8	38.4	39.7	31.4	27.8	30.2	1.5	1.569
U-4	1-29-69	41	26.8	10.5	9.9	10.1	47.4	38.4	41.6	33.0	30.4	31.7	1.5	1.567
CURRENT MACHINE AVERAGE			27.0			10.1			40.4			30.2		1.568
CUMULATIVE MACHINE AVERAGE			26.1			10.3			40.6			30.1		
MACHINE FACTOR, PERCENT			103.4			98.0			99.5			100.3		
MACHINE INDEX, PERCENT			100.0			97.1			94.2			93.5		

TABLE XXIII

SUMMARY OF TEST RESULTS FOR MACHINE V
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

V-1	12-10-68	172	27.0	12.8	11.9	12.2	42.6	35.4	39.0					
V-2	12-16-68	173	26.9	12.9	11.5	12.0	43.2	37.2	40.4				NOTE C	
V-3	1-13-69	174	27.7	12.0	11.5	11.8	46.8	33.0	41.5	31.0	28.4	29.7	NOTE C	
V-4	1-20-69	175	28.7	13.0	12.0	12.5	42.0	34.8	38.0	26.6	22.2	24.5	MIN.	1.557
													NOTE D	1.550
CURRENT MACHINE AVERAGE			27.6			12.1			39.7			27.1		1.554
CUMULATIVE MACHINE AVERAGE			27.3			11.2			42.6			31.4		
MACHINE FACTOR, PERCENT			101.1			108.0			93.2			86.3		
MACHINE INDEX, PERCENT			102.2			116.3			92.5			83.9		

* See Table II for Notes A and B.

C Maximum speed at which this roll could be corrugated with minimum tension was <100 f.p.m.
D Maximum speed at which this roll could be corrugated with minimum tension was 175 f.p.m.

TABLE XXIV

SUMMARY OF TEST RESULTS FOR MACHINE W

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR*B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
W-1	12-21-68	218	27.2	10.1	9.0	9.6	49.8	42.6	46.9	37.2	35.4	36.1	0.5	1.562
W-2	1-13-69	219	27.9	10.8	9.8	10.1	48.6	44.4	46.7	37.0	35.6	36.2	MIN.	1.560
CURRENT MACHINE AVERAGE			27.6			9.8			46.8			36.2		1.561
CUMULATIVE MACHINE AVERAGE			26.8			9.7			43.8			34.0		
MACHINE FACTOR, PERCENT			103.0			101.0			106.8			106.5		
MACHINE INDEX, PERCENT			102.2			94.2			109.1			112.1		

TABLE XXV

SUMMARY OF TEST RESULTS FOR MACHINE X

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

X-1	12- 4-68	1966	26.1	11.3	10.2	10.9	45.6	37.2	41.5	31.4	30.2	30.8	1.0	1.557
X-2	1-22-69	1974	27.6	11.0	10.3	10.7	43.8	35.4	41.2	30.6	27.4	29.0	1.5	1.567
X-3	1-22-69	1975	27.1	11.2	11.0	11.0	43.8	40.2	41.8	29.4	26.8	28.0	1.0	1.566
X-4	2-11-69	1983	27.4	11.1	10.5	10.9	47.4	41.4	43.9	31.4	28.4	30.2	1.5	1.569
CURRENT MACHINE AVERAGE			27.0			10.9			42.1			29.5		1.565
CUMULATIVE MACHINE AVERAGE			27.3			10.8								
MACHINE FACTOR, PERCENT			98.9			100.9			99.3			98.7		
MACHINE INDEX, PERCENT			100.0			104.8			98.1			91.3		

* See Table II for Notes A and B.

TABLE XXVI

SUMMARY OF TEST RESULTS FOR MACHINE Y

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR#B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
Y-1	12-19-68	324	26.5	10.1	9.3	9.9	40.2	36.0	37.7	30.8	27.2	29.5	1.5	1.570
Y-2	1- 4-69	325	26.3	10.2	9.1	9.7	44.4	39.0	42.2	31.8	28.6	30.2	1.5	1.574
Y-3	1-24-69	326	27.1	10.7	9.9	10.2	45.6	37.2	40.8	29.8	28.2	29.2	1.5	1.569
Y-4	2- 3-69	327	26.6	10.2	9.8	10.0	45.0	40.2	42.6	31.8	29.0	30.4	1.5	1.568
CURRENT MACHINE AVERAGE			26.6			10.0			40.8			29.8		1.570
CUMULATIVE MACHINE AVERAGE			26.7			9.6			41.8			31.1		
MACHINE FACTOR, PERCENT			99.6			104.2			97.6			95.8		
MACHINE INDEX, PERCENT			98.5			96.2			95.1			92.3		

TABLE XXVII

SUMMARY OF TEST RESULTS FOR MACHINE Z

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

Z-1	1-20-69	26.3	10.8	10.0	10.4	48.0	40.2	44.3	32.4	30.8	31.4	1.5	1.570
Z-2	1-21-69	26.8	11.0	10.0	10.4	48.0	37.8	43.4	34.2	31.6	33.2	1.5	1.571
Z-3	2-10-69	26.5	10.7	10.0	10.2	48.6	40.2	44.2	30.0	28.4	29.2	1.5	1.575
Z-4	2-11-69	26.7	10.5	9.9	10.2	47.4	43.2	45.0	31.6	30.4	31.0	1.5	1.575
CURRENT MACHINE AVERAGE			26.6			10.3		44.2			31.2		1.573
CUMULATIVE MACHINE AVERAGE			27.0			10.5		47.2			34.8		
MACHINE FACTOR, PERCENT			98.5			98.1		93.6			89.6		
MACHINE INDEX, PERCENT			98.5			99.0		103.0			96.6		

* See Table II for Notes A and B.

TABLE XXVIII

SUMMARY OF TEST RESULTS FOR MACHINE AA
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR*B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
AA-1	12- 3-68	4321	27.2	12.0	10.6	11.4	37.8	35.4	36.2	28.2	26.6	27.3	1.5	1.561
AA-2	12-14-68	4653	29.6	12.0	10.6	11.5	44.4	42.0	42.8	34.0	31.4	32.6	1.5	1.558
AA-3	1-18-69	438	27.7	11.5	11.0	11.1	34.8	30.6	33.2	25.2	24.0	24.7	1.5	1.565
AA-4	1-24-69	440	27.8	12.0	11.0	11.6	39.0	34.2	36.8	29.8	27.4	28.2	1.0	1.560
CURRENT MACHINE AVERAGE			28.1			11.4			37.2			28.2		1.561
CUMULATIVE MACHINE AVERAGE			28.6			11.2			40.2			30.0		
MACHINE FACTOR, PERCENT			98.2			101.8			92.5			94.0		
MACHINE INDEX, PERCENT			104.1			109.6			86.7			87.3		

TABLE XXIX

SUMMARY OF TEST RESULTS FOR MACHINE BB
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

BB-1	11-16-68	3696	28.0	11.5	11.0	11.2	46.8	41.4	45.1	33.6	31.8	32.8	1.5	1.568
BB-2	11-28-68	6551	27.6	12.0	11.2	11.7	47.4	39.6	43.8	35.0	32.6	33.5	1.0	1.568
BB-3	12- 7-68	1496	27.5	11.6	11.0	11.2	48.6	45.6	46.9	34.2	30.0	32.5	1.5	1.567
CURRENT MACHINE AVERAGE			27.7			11.4			45.3			32.9		1.568
CUMULATIVE MACHINE AVERAGE			27.0			11.0			48.9			35.8		
MACHINE FACTOR, PERCENT			102.6			103.6			92.6			91.9		
MACHINE INDEX, PERCENT			102.6			109.6			105.6			101.8		

*See Table II for Notes A and B.

TABLE XXX

SUMMARY OF TEST RESULTS FOR MACHINE CC
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY LB./IN.*A	DRAW FACTOR*B
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.		
CC-1	12-18-68	19	28.2	10.6	10.0	10.1	40.8	37.2	38.9	32.6	30.6	31.8	1.0	1.561
CC-2	1-21-69	1	27.6	10.0	9.8	10.0	43.8	34.8	39.1	30.0	28.4	29.0	1.5	1.573
CURRENT MACHINE AVERAGE			27.9			10.0			39.0			30.4		1.567
CUMULATIVE MACHINE AVERAGE			27.6			10.1			40.5			30.9		
MACHINE FACTOR, PERCENT			101.1			99.0			96.3			98.4		
MACHINE INDEX, PERCENT			103.3			96.2			90.9			94.1		

TABLE XXXI

SUMMARY OF TEST RESULTS FOR MACHINE DD
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

DD-1	1-20-69		26.8	11.2	10.1	10.7	46.8	37.2	42.2	31.4	29.6	30.5	1.5	1.568
DD-2	1-21-69		26.8	11.0	10.0	10.4	46.2	38.4	42.1	32.6	29.8	30.6	1.5	1.568
DD-3	2- 5-69		27.9	10.9	10.2	10.6	48.0	43.8	46.0	32.6	31.0	31.6	1.5	1.569
DD-4	2- 6-69		27.8	11.0	10.0	10.5	49.2	44.4	46.4	34.4	30.4	32.5	1.5	1.567
CURRENT MACHINE AVERAGE			27.3			10.6			44.2			31.3		1.568
CUMULATIVE MACHINE AVERAGE			27.1			10.6			43.9			32.5		
MACHINE FACTOR, PERCENT			100.7			100.0			100.7			96.3		
MACHINE INDEX, PERCENT			101.1			101.9			103.0			96.9		

* See Table II for Notes A and B.

TABLE XXXII

SUMMARY OF TEST RESULTS FOR MACHINE EE

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	DRAW FACTOR*B
EE-1	11-25-68	564	26.8	11.5	10.3	10.8	48.6	43.2	45.8	35.8	33.0	34.6	1.0	1.563
EE-2	12- 9-68	565	26.5	10.9	9.7	10.5	45.6	43.2	44.4	32.8	30.6	32.0	MIN.	1.555
EE-3	1- 6-69	566	25.5	10.7	9.0	9.9	51.0	44.4	48.2	37.8	33.4	35.7	1.0	1.562
EE-4	1-13-69	567	25.8	10.1	9.0	9.7	46.8	41.4	43.4	35.2	32.4	33.7	1.5	1.561
CURRENT MACHINE AVERAGE			26.2			10.2			45.4			34.0		1.560
CUMULATIVE MACHINE AVERAGE			26.1			10.1			45.6			34.9		
MACHINE FACTOR, PERCENT			100.4			101.0			99.6			97.4		
MACHINE INDEX, PERCENT			97.0			98.1			105.8			105.3		

TABLE XXXIII

SUMMARY OF TEST RESULTS FOR MACHINE FF

JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

FF-1	1-29-69	122	27.2	12.0	11.2	11.7	39.0	37.2	38.3	30.6	27.4	28.7	0.5	1.562
CURRENT MACHINE AVERAGE			27.2			11.7			38.3			28.7		1.562
CUMULATIVE MACHINE AVERAGE			27.5			11.0			47.2			33.1		
MACHINE FACTOR, PERCENT			98.9			106.4			81.1			86.7		
MACHINE INDEX, PERCENT			100.7			112.5			89.3			88.8		

* See Table II for Notes A and B.

TABLE XXXIV

SUMMARY OF TEST RESULTS FOR MACHINE GG
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

CODE	DATE MADE	MILL ROLL NO.	BASIS WT., LB./M. SQ. FT.	CALIPER, PT.			CONCORA FLAT CRUSH, P.S.I.			SINGLE-FACE FLAT CRUSH, P.S.I.			RUNNABILITY	
				MAX.	MIN.	AV.	MAX.	MIN.	AV.	MAX.	MIN.	AV.	LB./IN.*A	DRAW FACTOR*8
GG-1	1-22-69	169-2	26.4	11.2	10.8	11.0	42.6	38.4	40.0	32.6	30.4	31.4	1.5	1.572
GG-2	1-23-69	169-1	26.8	11.1	10.1	10.9	52.2	42.6	46.0	36.8	35.4	36.0	1.5	1.570
CURRENT MACHINE AVERAGE			26.6			11.0			43.0			33.7		1.571
CUMULATIVE MACHINE AVERAGE			27.2			10.9			41.5			33.6		
MACHINE FACTOR, PERCENT			97.8			100.9			103.6			100.3		
MACHINE INDEX, PERCENT			98.5			105.8			100.2			104.3		

TABLE XXXV

SUMMARY OF TEST RESULTS FOR MACHINE HH
JANUARY AND FEBRUARY, 1969

TYPE OF MEDIUM- SEMICHEMICAL

HH-1	1- 2-69	23	25.8	12.0	11.0	11.4	49.2	42.0	45.8	34.6	31.8	33.2	NOTE C 1.0	1.549
HH-2	1-11-69	25	26.4	11.2	10.0	10.5	54.0	49.8	52.4	39.2	36.4	37.8		1.560
CURRENT MACHINE AVERAGE			26.1			11.0			49.1			35.5		1.555
CUMULATIVE MACHINE AVERAGE			25.7			10.6			44.3			34.1		
MACHINE FACTOR, PERCENT			101.6			103.8			110.8			104.1		
MACHINE INDEX, PERCENT			96.7			105.8			114.4			109.9		

*See Table II for Notes A and B.

C Maximum speed at which this roll could be corrugated with minimum tension was 500 f.p.m.

DISCUSSION OF RESULTS

Shown on page 2, Part II, Section "A" of the Summary are the maximum and minimum current machine averages obtained for each test property during the current period and the previous period. Also shown for each test property is the current F.K.I. average which represents the mean of the current machine averages and hence is indicative of the test level being maintained by the industry as a whole for each test property to the extent that the industry is represented by the participating machines. Also given for each test property is the cumulative F.K.I. average which represents the mean of the current F.K.I. averages for the previous six periods.

The runnability data for the 117 rolls evaluated during the current period and the 121 rolls evaluated during the previous period are summarized on page 2, Part II, Section "B" of the Summary.

Supplementary to the runnability data, draw factors were determined for each roll of medium at 600 f.p.m. with minimum tension (or, for rolls with poor runnability, at the maximum speed runnable with minimum tension) and are given in Tables II through XXXV for Machines A through Z and Machines AA, BB, CC, DD, EE, FF, GG, and HH, respectively.

In Table XXXVI, an effort has been made to compare Institute and mill Concora flat crush test results for each machine for the current period. In those cases where mill Concora flat crush data are still obtained on specimens conditioned after fluting, no differences between Institute and mill averages for individual rolls are shown, no current machine averages based on mill data are shown, and no average differences between current machine averages based on Institute and mill data are shown. The inclusion of these comparisons is made

TABLE XXXVI
INSTITUTE AND MILL CONCORDA FLAT CRUSH TEST RESULTS ON INDIVIDUAL ROLLS FOR JANUARY AND FEBRUARY, 1969

Machine A									
Concorda Flat Crush, p.s.i.									
Instl- Roll									
Code	No.	Date	Made	tute	ence ^a	Code	No.	Date	Made
A-1	189	1-29-69		40.6	+3.7	B-1	655	11-27-68	42.6
A-2	190	1-29-69		38.4	-1.9	B-2	656	12-9-68	45.0
A-3	191	1-29-69		39.6	+3.8	B-3	657	12-18-68	45.5
A-4	192	1-29-69		39.2	+1.5				42.2
				41.0	+2.0				-1.5
Current machine av.									
Machine D									
D-1	3203	1-10-69		44.2	-2.0	E-1	420	12-9-68	36.6
D-2	3162	2-8-69		42.2	-0.2	E-2	421	12-23-68	44.9
				42.0		E-3	422	1-10-69	40.9
				42.1	-1.1	E-4	423	1-29-69	42.8
Current machine av.									
Machine G									
G-1	818	12-12-68		47.0	37.9 ^b	H-1	36	12-18-68	36.7
G-2	819	12-16-68		49.6	37.7 ^b	H-2	38	1-1-69	42.4
G-3	820	12-16-68		48.8	39.5 ^b	H-3	40	1-15-69	40.6
G-4	821	1-6-69		46.0	37.8 ^b	H-4	42	1-29-69	38.9
Current machine av.									
Machine J									
J-1	3487	11-29-68		44.8	43.4	K-1	10	12-27-68	43.2
J-2	3602	12-2-68		50.3	49.4	K-2	11	12-27-68	42.0
J-3	3841	12-9-68		45.7	45.7	K-3	12	12-27-68	44.3
J-4	3877	12-10-68		43.8	45.8	K-4	13	1-31-69	46.6
Current machine av.									
Machine K									
Concorda Flat Crush, p.s.i.									
Instl- Roll									
Code	No.	Date	Made	tute	ence ^a	Code	No.	Date	Made
L-1	324	12-18-68		42.4	-1.1	L-1	324	12-18-68	42.4
L-2	325	1-4-69		40.2	-3.1	L-2	325	1-4-69	40.2
L-3	326	1-24-69		37.2	-0.1	L-3	326	1-24-69	37.2
L-4	327	2-3-69		40.2	-5.3	L-4	327	2-3-69	40.2
Current machine av.									
Machine I									
I-1	795	12-16-68		43.7	42.3	I-1	795	12-16-68	43.7
I-2	796	1-12-69		43.2	-1.9	I-2	796	1-12-69	43.2
I-3	797	1-19-69		38.2	-1.2	I-3	797	1-19-69	38.2
I-4	798	2-4-69		42.1	-2.4	I-4	798	2-4-69	42.1
Current machine av.									
Machine L									
Concorda Flat Crush, p.s.i.									
Instl- Roll									
Code	No.	Date	Made	tute	ence ^a	Code	No.	Date	Made
M-1	225	12-17-68		42.8	-1.4	M-1	225	12-17-68	42.8
M-2	226	1-2-69		44.3	-4.1	M-2	226	1-2-69	44.3
M-3	229	1-29-69		43.9	-0.5	M-3	229	1-29-69	43.9
M-4	230	1-31-69		43.3	+1.1	M-4	230	1-31-69	43.3
Current machine av.									

See end of table for footnotes.

TABLE XXXVI (Continued)

INSTITUTE AND MILL CONCORA FLAT CRUSH TEST RESULTS ON INDIVIDUAL ROLLS FOR JANUARY AND FEBRUARY, 1969

Machine M						Machine N						Machine O					
Mill		Concora Flat Crush, p.s.i.				Mill		Concora Flat Crush, p.s.i.				Mill		Concora Flat Crush, p.s.i.			
Code	Roll No.	Date Made	Insti- tute	Mill	Differ- ence ^a	Code	Roll No.	Date Made	Insti- tute	Mill	Differ- ence ^a	Code	Roll No.	Date Made	Insti- tute	Mill	Differ- ence ^a
M-1	694	11-13-68	53.3	41.2 ^b	--	N-1	118	12- 7-68	45.0	34.1 ^b	--	O-1	--	1-19-69	44.2	45.6	+1.4
M-2	695	11-28-68	45.2	37.1 ^b	--	N-2	119	12-22-68	45.1	35.0 ^b	--	O-2	--	1-20-69	44.4	43.8	-0.6
M-3	696	12-10-68	45.2	37.1 ^b	--	N-3	120	1-29-69	42.6	32.3 ^b	--	O-3	--	1-21-69	42.4	44.3	+1.9
M-4	697	12-20-68	46.7	37.8 ^b	--	N-4	121	1-29-69	42.0	33.6 ^b	--	O-4	--	1-22-69	42.6	43.9	+1.3
Current machine av.			47.6			Current machine av.			43.7			Current machine av.			43.4	44.4	+1.0
Machine P						Machine Q						Machine R					
P-1	3515	12-21-68	45.6	46.7	+1.1	Q-1	2352	1- 9-69	41.9	39.1	-2.8	R-1	223	12-10-68	42.5	39.5	-3.0
P-2	3723	1- 1-69	37.9	40.3	+2.4	Q-2	3632	2- 9-69	43.7	40.0	-3.7	R-2	224	12-20-68	47.8	43.6	-4.2
Current machine av.			41.8	43.5	+1.7	Current machine av.			42.8	39.6	-3.2	Current machine av.			43.9	42.3	-1.6
Machine S						Machine T						Machine U					
S-1	3641	12- 3-68	40.0	34.1 ^c	-5.9	T-1	520	12-10-68	44.4	41.3	-3.1	U-1	35	12-19-68	40.8	30.1 ^b	--
S-2	3361	12-13-68	41.8	--	--	T-2	521	12-23-68	41.0	38.8	-2.2	U-2	37	1- 1-69	39.6	29.5 ^b	--
S-3	309	1-18-69	39.4	36.2	-3.2	T-3	522	1-10-69	40.4	38.5	-1.9	U-3	39	1-14-69	39.7	35.9 ^b	--
S-4	306	1-25-69	38.6	36.5	-2.1	T-4	523	1-27-69	37.6	34.2	-3.4	U-4	41	1-29-69	41.6	30.6 ^b	--
Current machine av.			39.3	35.6	-3.7	Current machine av.			40.8	38.2	-2.6	Current machine av.			40.4		
Machine V						Machine W						Machine X					
V-1	172	12-10-68	39.0	38.2	-0.8	W-1	218	12-21-68	46.9	-- ^c	--	X-1	1966	12- 4-68	41.5	33.4 ^b	--
V-2	173	12-16-68	40.4	39.2	-1.2	W-2	219	1-13-69	46.7	-- ^c	--	X-2	1974	1-22-69	41.2	33.2 ^b	--
V-3	174	1-13-69	41.5	40.3	-1.2							X-3	1975	1-22-69	41.8	30.6 ^b	--
V-4	175	1-20-69	38.0	39.6	+1.6							X-4	1983	2-11-69	43.9	31.8 ^b	--
Current machine av.			39.7	39.3	-0.4	Current machine av.			46.8			Current machine av.			42.1		

See end of table for footnotes.

TABLE XXXVI (Continued)

INSTITUTE AND MILL CONCORDA FLAT CRUSH TEST RESULTS ON INDIVIDUAL ROLLS FOR JANUARY AND FEBRUARY, 1969

Machine Y									
Concorda Flat Crush, p.s.i.		Institute		Date Made		Roll		Machine AA	
Code	No.	Code	No.	Code	No.	Code	No.	Code	No.
Y-1	324	Y-1	324	AA-1	4321	AA-1	4321	AA-1	4321
	12-19-68		12-19-68		12-3-68		12-3-68		12-3-68
	37.7		37.7		36.2		36.2		37.9
Y-2	325	Y-2	325	AA-2	4653	AA-2	4653	AA-2	4653
	1-4-69		1-4-69		12-14-68		12-14-68		12-14-68
	42.2		42.2		42.8		42.8		33.5
Y-3	326	Y-3	326	AA-3	438	AA-3	438	AA-3	438
	1-24-69		1-24-69		1-18-69		1-18-69		29.8
	40.8		40.8		33.2		33.2		34.2
Y-4	327	Y-4	327	AA-4	440	AA-4	440	AA-4	440
	2-3-69		2-3-69		1-24-69		1-24-69		37.2
	42.6		42.6		36.8		36.8		33.8
	38.5		38.5		37.2		37.2		-3.4
Machine BB									
Current machine av.		Current machine av.		Current machine av.		Current machine av.		Current machine av.	
	40.8		40.8		44.2		44.2		44.2
BB-1	3696	BB-1	3696	DD-1	1-20-69	DD-1	1-20-69	DD-1	1-20-69
	11-16-68		11-16-68		42.2		42.2		42.5
	45.1		45.1		42.5		42.5		+0.3
BB-2	6551	BB-2	6551	DD-2	1-21-69	DD-2	1-21-69	DD-2	1-21-69
	11-28-68		11-28-68		43.8		43.8		43.0
	43.8		43.8		43.0		43.0		+0.9
BB-3	1496	BB-3	1496	DD-3	2-5-69	DD-3	2-5-69	DD-3	2-5-69
	12-7-68		12-7-68		46.9		46.9		46.1
	46.9		46.9		46.1		46.1		+0.1
Machine EE									
Current machine av.		Current machine av.		Current machine av.		Current machine av.		Current machine av.	
	45.3		45.3		44.2		44.2		45.0
EE-1	564	EE-1	564	GG-1	169-2	GG-1	169-2	GG-1	169-2
	11-25-68		11-25-68		40.0		40.0		45.1
	45.8		45.8		45.1		45.1		+5.1
EE-2	565	EE-2	565	GG-2	169-1	GG-2	169-1	GG-2	169-1
	12-9-68		12-9-68		46.0		46.0		44.9
	44.4		44.4		44.9		44.9		-1.1
EE-3	566	EE-3	566						
	1-6-69		1-6-69						
	48.2		48.2						
EE-4	567	EE-4	567						
	1-13-69		1-13-69						
	36.6		36.6						
Machine FF									
Current machine av.		Current machine av.		Current machine av.		Current machine av.		Current machine av.	
	45.4		45.4		38.3		38.3		38.3
FF-1	122	FF-1	122						
	1-29-69		1-29-69						
	38.3		38.3						
Machine HH									
Current machine av.		Current machine av.		Current machine av.		Current machine av.		Current machine av.	
	45.8		45.8		43.0		43.0		45.0
HH-1	23	HH-1	23						
	1-2-69		1-2-69						
	44.3		44.3						
HH-2	25	HH-2	25						
	1-11-69		1-11-69						
	52.4		52.4						
Machine JJ									
Current machine av.		Current machine av.		Current machine av.		Current machine av.		Current machine av.	
	49.1		49.1		47.1		47.1		45.0
JJ-1	23	JJ-1	23						
	1-2-69		1-2-69						
	44.3		44.3						
JJ-2	25	JJ-2	25						
	1-11-69		1-11-69						
	52.4		52.4						

This difference is the amount in p.s.i. units by which the mill results are higher or lower than the Institute results.

^b Mill data were not obtained on specimens tested immediately after fluting.

^c No data available.

possible by the fact that interested participants submit their Concora flat crush test results to The Institute of Paper Chemistry (on data sheets obtainable from the Institute). This affords each participant an opportunity to review the level of agreement noted for his data with the levels noted for the other participants. Comparisons of this kind are a helpful adjunct to other calibration procedures.

The Institute and mill Concora flat crush data obtained on specimens tested immediately after fluting (see Table XXXVI) are summarized in Part I of Table XXXVII where the following information is given: (1) Current machine averages based on Institute data, (2) current machine average based on mill data, (3) the average difference — that is, the difference between the current machine average based on Institute data and the current machine average based on mill data, and (4) the maximum difference encountered in comparing Institute and mill test averages for individual rolls. In Part II of Table XXXVII the average differences given in Part I are expressed as percentage differences.

TABLE XXXVII

PART I: A COMPARATIVE SUMMARY FOR EACH MACHINE OF THE CONCORA FLAT CRUSH AVERAGES BASED ON INSTITUTE DATA AND THOSE BASED ON MILL DATA

Machine code	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Number of rolls compared	4	3	4	2	4	4	0	0	4	4	4	4	0	0	4	2	2	4	3	4
Concora flat crush, p.s.i.																				
Current machine av. (Institute) ^a	39.0	44.4	45.3	43.2	41.3	43.7	--	--	41.8	46.2	44.0	40.0	--	--	43.4	41.8	42.8	43.9	39.3	40.8
Current machine av. (Mill) ^a	41.0	42.9	45.0	42.1	37.7	42.5	--	--	40.1	46.1	37.4	37.6	--	--	44.4	43.5	39.6	42.3	35.6	38.2
Average difference ^b	+2.0	-1.5	-0.3	-1.1	-3.6	-1.2	--	--	-1.7	-0.1	-6.6	-2.4	--	--	+1.0	+1.7	-3.2	-1.6	-3.7	-2.6
Maximum difference ^c	+3.8	-3.3	-1.9	-2.0	-4.1	-4.1	--	--	-2.4	+2.0	-13.5	-5.3	--	--	+1.9	+2.4	-3.7	-4.2	-5.9	-3.4

Machine code	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH
Number of rolls compared	0	4	0	0	4	4	4	3	2	4	0	0	2	2
Concora flat crush, p.s.i.														
Current machine av. (Institute) ^a	--	39.7	--	--	40.8	44.2	37.2	45.3	39.0	44.2	--	--	43.0	49.1
Current machine av. (Mill) ^a	--	39.3	--	--	37.8	44.3	33.8	45.3	36.8	44.2	--	--	45.0	47.1
Average difference ^b	--	-0.4	--	--	-3.0	+0.1	-3.4	0.0	-2.2	0.0	--	--	+2.0	-2.0
Maximum difference ^c	--	+1.6	--	--	-4.3	-0.5	-9.3	+4.2	-3.6	-1.0	--	--	+5.1	-2.5

PART II: A TABULATION FOR EACH MACHINE OF THE AVERAGE DIFFERENCE (PERCENT) BETWEEN THE CONCORA FLAT CRUSH BASED ON INSTITUTE DATA AND THAT BASED ON MILL DATA

Average difference, % ^d																				
Current report (Jan.-Feb.)	+5.1	-3.4	-0.7	-2.5	-8.7	-2.7	--	--	-4.1	-0.2	-15.0	-6.0	--	--	+2.3	+4.1	-7.5	-3.6	-9.4	-6.4
11th Report (Nov.-Dec.)	+2.3	-0.5	--	-1.3	-7.1	-4.3	--	--	-6.7	-9.1	-10.6	-5.1	--	--	-1.3	0.0	-1.7	+5.5	-5.1	-8.2
10th Report (Sept.-Oct.)	+6.8	--	+5.5	-2.2	-9.2	+2.6	--	+5.5	-7.9	-2.0	-13.7	-16.3	--	--	+6.2	+0.2	-9.7	-1.6	-7.7	-1.0

Average difference, % ^d														
Current report (Jan.-Feb.)	--	-1.0	--	--	-7.4	+0.2	-9.1	0.0	-5.6	0.0	--	--	+4.7	-4.1
11th Report (Nov.-Dec.)	--	-10.0	--	--	-8.2	+1.5	-4.2	--	-4.8	+0.2	--	--	+4.7	-0.7
10th Report (Sept.-Oct.)	-2.5	-14.5	--	--	-12.6	+1.3	-6.5	--	-3.5	+0.2	--	--	--	-0.4

^aComparisons based on current machine average include only those rolls for which mill data were submitted.

^bAverage difference is the difference between the current machine average based on Institute test results and that based on mill test results with the Institute test results used as the reference. See Table XXXVI.

^cMaximum difference is the greatest difference encountered in comparing Institute and mill test averages for individual rolls. See Table XXXVI.

^dAverage difference (percent) is computed by dividing the average difference in p.s.i. (shown above in Part I of this table) by the Institute current machine average and multiplying the result by 100.

THE INSTITUTE OF PAPER CHEMISTRY

A handwritten signature in dark ink, appearing to read 'R C McKee', is written over a horizontal line.

R. C. McKee, Chairman
Container Section

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