

MAKING INSTRUCTIONS: BATCH UNIT

S.V. 243, 244, 246, 247

C.V.

D.V.

CG 03 CODE KY-907-D

PKG.

→ APR 29 35178

EST. WGT. 1080 LBS.

STD. HRS. TIME

14 YC-2-B 93 4 Lot 24477 2000 #  
14 YC-2-B 93 4 Lot 24468 400 #  
14 YC-2-B 93 4 Lot \_\_\_\_\_ #

| PROCESSES     |     | APPROVED BY |          |
|---------------|-----|-------------|----------|
| ( ) KY-907-D  | (E) | EWK         | 12/12/77 |
| ( ) Alternate | ( ) | DCG         | 12/14/77 |
| ( )           | ( ) |             |          |
| ( )           | ( ) |             |          |
| TYPED BY      |     |             |          |
| BY 3/1/78     |     |             |          |

PUNCHED & CHECKED  
APR 3 1980

Total Wgt. 3480# (Req. )

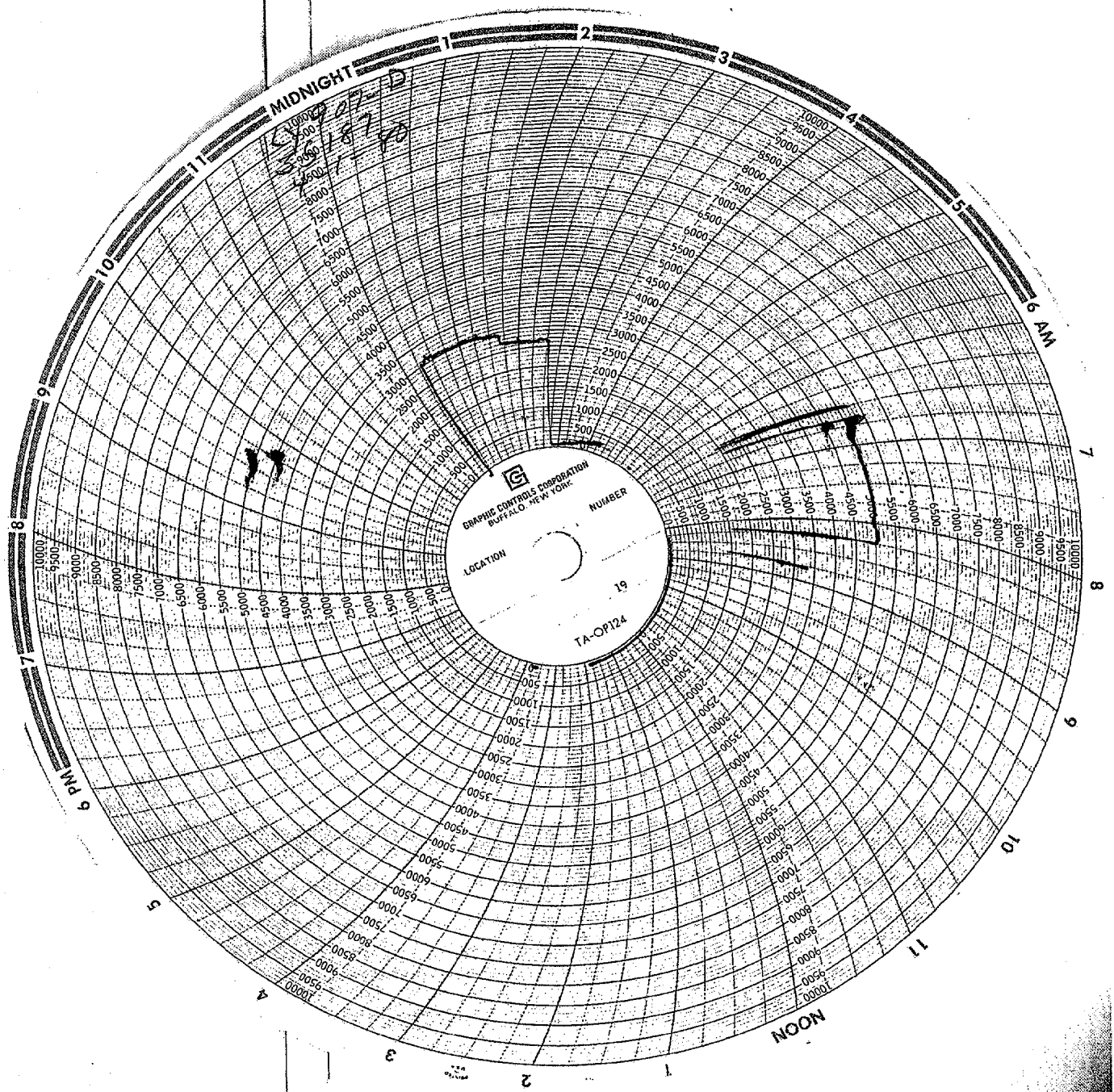
NON-BLEEDING

| EQUIPMENT | NAME                                                                                                        | USE LBS. | N CODE | ACCT. LBS. |
|-----------|-------------------------------------------------------------------------------------------------------------|----------|--------|------------|
| 60"       | KROLOR <sup>®</sup> YELLOW - MEDIUM                                                                         |          |        |            |
| 203       | 1 Run 33" (560 G) water into V-203. SET AGITATOR ON HIGH SPEED                                              |          |        |            |
| 205       | 2 Pour in                                                                                                   | 320      | 32-D   | 320        |
| 1         | 3 Dump in                                                                                                   | 48 x 50  | YC-2-B | 2400       |
|           | Record: Start _____<br>Fin _____                                                                            |          |        |            |
|           | 75" (1275 G)                                                                                                |          |        |            |
|           | 4 Adj to 70" (1200 G) 2400-2600                                                                             |          |        |            |
|           | 5 Pump V-203 thru Homog #3 at 1800-2200 psi into V-205 V-263                                                |          |        |            |
|           | 6 When V-203 MTY, wash color thru Homog at 1800-2200 psi using minimum water                                |          |        |            |
|           | 7 Record: V-205 Vol 54" & adj to 60" (2100 G)                                                               |          |        |            |
|           | 8 Inspect Homog strainer & clean if necessary                                                               |          |        |            |
|           | DURING HOMOG, RUN V-203 AGITATOR ON LOW SPEED.                                                              |          |        |            |
| SV &      | 9 Run 5" 18" (514 G) water into V-263. Install Temp chart & start agitator                                  |          |        |            |
| V-763     | 10 Pump V-205 thru Homog at 4800-5200 psi into SV                                                           |          |        |            |
|           | Record: Time Start 545 Total Min                                                                            |          |        |            |
|           | Note: If Homog pressure falls below 4800 psi 3-way valve will recirculate slurry to V-205                   |          |        |            |
|           | 11 When V-205 MTY, run in 5" (240 G) water & pump thru Homog at 4800-5200 psi                               |          |        |            |
| 349 & 384 | 12 While Homog, run 6" (284 G) water into V-349                                                             |          |        |            |
| 3         | 13 Run 11000# water into V-384 & heat to 110-120°F                                                          |          |        |            |
|           | 14 Weigh into V-384 & pump to V-349                                                                         | 1840     | 32-D   | 1840       |
|           | 15 Run 11000# water into V-384 & pump to V-349                                                              |          |        |            |
|           | 16 Adj V-349 to 17" (805 G) & stir 15 min or longer                                                         |          |        |            |
|           | 17 Record: $\phi_{\text{BET}} 1.080 (11.0 \pm 0.2) (1.079 - 1.083)$                                         |          |        |            |
|           | 18 When S 11 Homog complete, adj SV to 48" (2470 G)                                                         |          |        |            |
| SV 4      | 19 Record: pH 10.6 & adj to 11.1-11.3 using N-7-D diluted to 5% (10 parts water to 1 part N-7-D) Assume 50% | 24       | 7-D    | 12         |
|           | Siphon into SV & Record: pH 11.2                                                                            |          |        |            |
|           | 20 Heat to 190-194°F in 55-65 min & Record: HT 194°F & Ret 194°F                                            |          |        |            |
|           | Note: Strike must be started immediately on completion of heating                                           |          |        |            |
| 343 & 386 | 21 While heating SV, run 39" (1070 G) water into V-343                                                      |          |        |            |
| 5         | 22 Meter in from V-386 M 23. 2302#/Gal 29.5 Gal 29.5                                                        |          | 27-D   | 275        |
|           | 23 Stir 15 min or longer                                                                                    |          |        |            |
|           | 24 Record: $\phi_{\text{BET}} 1.017 (2.8 \pm 0.1) (1.017 - 1.018)$                                          |          |        |            |

V-262

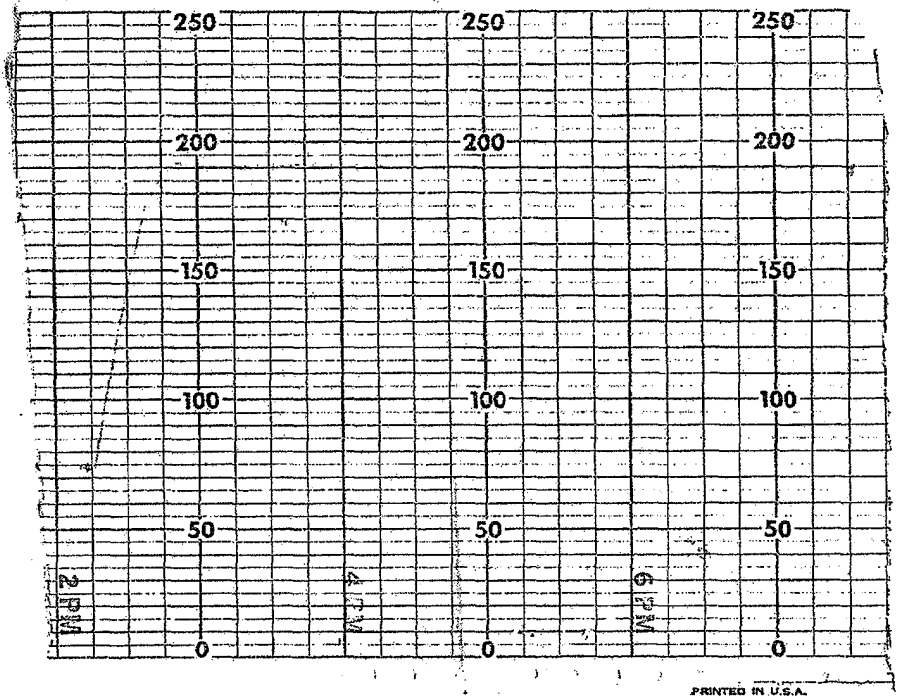
| EQUIPMENT | PAGE | CG | 03 | CODE | ky-907-D (E)                                                                                                              | EST. WGT. | 3480 | LBS. | USE  | N          | ACCT. |
|-----------|------|----|----|------|---------------------------------------------------------------------------------------------------------------------------|-----------|------|------|------|------------|-------|
|           |      |    |    |      |                                                                                                                           |           |      |      | LBS. | CODE       | LBS.  |
| SV 6      | 25   |    |    |      | When S 20 heating complete Record: pH 10.0 (9.5-10.0)                                                                     |           |      |      |      |            |       |
|           | 26   |    |    |      | Set V-343 acid pump at 82 setting (±150min)                                                                               |           |      |      |      |            |       |
|           | 27   |    |    |      | Set V-349 silicate pump at 72 setting (±120min)                                                                           |           |      |      |      |            |       |
|           | 28   |    |    |      | Immediately meter in V-343 & 349. Maintain SV at 190-194 F during strike                                                  |           |      |      |      |            |       |
|           | 29   |    |    |      | Record: Start Finish Minutes                                                                                              |           |      |      |      |            |       |
|           |      |    |    |      | V-343 9:15 Am 12:36 180                                                                                                   |           |      |      |      |            |       |
|           |      |    |    |      | V-349 11:15 Am 12:00 120                                                                                                  |           |      |      |      |            |       |
|           |      |    |    |      | Record: Time V-343 V-349 SV Normal                                                                                        |           |      |      |      |            |       |
|           |      |    |    |      | Inches Inches pH pH                                                                                                       |           |      |      |      |            |       |
|           |      |    |    |      | at 20 min 9:35 Am (35) (14) 14 9.8 9.3-10.0                                                                               |           |      |      |      |            |       |
|           |      |    |    |      | 40 min 9:55 Am (30) (11) 11 9.7 9.3-10.0                                                                                  |           |      |      |      |            |       |
|           |      |    |    |      | 1 hrs 10:15 Am (24) (9) 9 9.5 9.3-10.0                                                                                    |           |      |      |      |            |       |
|           |      |    |    |      | 2 hrs 11:15 Am (8) (0) 0 9.4 9.3-10.0                                                                                     |           |      |      |      |            |       |
|           |      |    |    |      | Finish 12:10 Am (0) (0) 0 7.5-8.5                                                                                         |           |      |      |      |            |       |
|           |      |    |    |      | Note: (1) If pH Not as specified notify Supervisor & Note in log (2) If final pH is above 8.5 adj to 7.5-8.5              |           |      |      |      |            |       |
|           |      |    |    |      | & Record: pH = Assume 78%                                                                                                 |           |      |      |      |            |       |
|           | 30   |    |    |      | Sift in                                                                                                                   |           |      |      | 50   | 27-D 128-A | 50    |
| 357       | 31   |    |    |      | Run 11" (80 G) water into V-357 & heat to 135-140°F                                                                       |           |      |      |      |            |       |
| 7         | 32   |    |    |      | Dump in & stir to dissolve for S 60                                                                                       |           |      |      | 160  | 15-A       | 160   |
| 302       | 33   |    |    |      | Run 17" (208 G) water into V-302                                                                                          |           |      |      |      |            |       |
| 8         | 34   |    |    |      | Add & stir 2 min for S 62 Assume 50%                                                                                      |           |      |      | 100  | 7-D        | 50    |
| PT        | 35   |    |    |      | During strike pump into PT                                                                                                |           |      |      | 318  | 169-A      | 318   |
| 9         | 36   |    |    |      | Pump in                                                                                                                   |           |      |      | 36   | 155-A      | 36    |
|           | 37   |    |    |      | Pump in                                                                                                                   |           |      |      | 36   | 160-A      | 36    |
|           | 38   |    |    |      | Stir 10 min with lightning mixer for S 42                                                                                 |           |      |      |      |            |       |
| 356       | 39   |    |    |      | During Strike, Run 28" (244G) water into V-356                                                                            |           |      |      |      |            |       |
| 10        | 40   |    |    |      | Turn on steam                                                                                                             |           |      |      |      |            |       |
|           | 41   |    |    |      | Adj to 26 1/2 (317G) at 178-182°F 82°C                                                                                    |           |      |      |      |            |       |
|           | 42   |    |    |      | Pump PT mixture from S38 thru undersurface Distributor AFAP                                                               |           |      |      |      |            |       |
|           | 43   |    |    |      | Rinse PT with hot water from hot water mixer & pump in                                                                    |           |      |      |      |            |       |
|           | 44   |    |    |      | Shut off pump 82°C                                                                                                        |           |      |      |      |            |       |
|           | 45   |    |    |      | Stir 30 min at 178-182°F for S 54                                                                                         |           |      |      |      |            |       |
|           | 46   |    |    |      | Do not shut off agitator                                                                                                  |           |      |      |      |            |       |
| SV 11     | 47   |    |    |      | When V-349 MTY, rinse in with minimum water then set pump to zero setting                                                 |           |      |      |      |            |       |
|           | 48   |    |    |      | When V-343 MTY, rinse in with minimum water then turn off pump motor                                                      |           |      |      |      |            |       |
|           | 49   |    |    |      | Heat to 198-200°F in 5-10 min                                                                                             |           |      |      |      |            |       |
|           | 50   |    |    |      | Close water line & discharge valves at stearate pump                                                                      |           |      |      |      |            |       |
|           | 51   |    |    |      | Open V-356 discharge valves to stearate pump inlet                                                                        |           |      |      |      |            |       |
|           | 52   |    |    |      | Open water valve at stearate pump & run water thru Homog at 2900-3100 PSI to sewer                                        |           |      |      |      |            |       |
|           | 53   |    |    |      | While Homog water at 2900-3100 PSI, open Homog Discharge valve to SV & close valve to sewer                               |           |      |      |      |            |       |
|           | 54   |    |    |      | Immediately open stearate pump discharge valve turn on pump & Homog V-356 to SV at 2800-3100 PSI Maintain SV at 198-200°F |           |      |      |      |            |       |
|           | 55   |    |    |      | While Homog V-356 to SV, shut off water valve at stearate pump ASAP                                                       |           |      |      |      |            |       |

| EQUIPMENT         | PAGE                                              | 3                                                        | CG | 03 | CODE | KY-907-D (E) | EST. WGT. | 3480 | LBS. | USE<br>LBS. | N<br>CODE | ACCT.<br>LBS. |
|-------------------|---------------------------------------------------|----------------------------------------------------------|----|----|------|--------------|-----------|------|------|-------------|-----------|---------------|
| SV<br>11<br>Con't | <del>56</del>                                     | When Homog complete, Rinse in V356 with hot water        |    |    |      |              |           |      |      |             |           |               |
|                   |                                                   | From hot water mixer                                     |    |    |      |              |           |      |      |             |           |               |
|                   | <del>57</del>                                     | When S56 complete, turn off Homog & stearate pump        |    |    |      |              |           |      |      |             |           |               |
|                   | <del>58</del>                                     | Stir 5 min at 198-200°F                                  |    |    |      |              |           |      |      |             |           |               |
|                   | <del>59</del>                                     | Shut off steam                                           |    |    |      |              |           |      |      |             |           |               |
|                   | <del>60</del>                                     | Run in V-357 from S32 and stir 5 min                     |    |    |      |              |           |      |      |             |           |               |
|                   |                                                   | Record: pH <u>3.3-3.7</u>                                |    |    |      |              |           |      |      |             |           |               |
|                   | <del>61</del>                                     | If necessary, adj pH to 3.3-3.7 (Downward only) and      |    |    |      |              |           |      |      |             |           |               |
|                   |                                                   | Record: pH                                               |    |    |      |              |           |      |      |             |           |               |
|                   | <del>62</del>                                     | Run in N-7-D from S34 in 4-6 min and stir 5 min          |    |    |      |              |           |      |      |             |           |               |
|                   | <del>63</del>                                     | Record: pH <u>3.8</u> (4.2-4.4) and if necessary, adj to |    |    |      |              |           |      |      |             |           |               |
|                   | pH 4.2-4.4 & Record: pH <u>4.3</u> Assume 78%     |                                                          |    |    |      |              |           |      |      |             |           |               |
|                   | (Dilute 10 parts water to 1 part N-7-D Assume 50% |                                                          |    |    |      |              |           |      |      |             |           |               |
|                   | Siphon N-7-D into SV                              |                                                          |    |    |      |              |           |      |      |             |           |               |
| <del>64</del>     | Do not stop agitator                              |                                                          |    |    |      |              |           |      |      |             |           |               |
|                   |                                                   |                                                          |    |    |      |              |           |      |      |             |           |               |
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