SCREENING

—Prepare stock slurry ("stock" may vary with location)

PVA (vehicle and helps to protect phosphor particle from mechanical fracture/damage)
Phosphor powder
Water
Ball mill

—Dispensable slurry

Add to stock slurry:
PVA
Rhoplex (gives spreadability to slurry)
Water
Dichromate (might use Tamol)
(?) may add ammonium vanadate (10 to 1 ratio with respect to dichromate)
wetting agent, L-92

PH adjusted
Viscosity controlled 30-50 (green-about 30, blue and red-higher)

—Dispense slurry into center of panel
control spin rate and tilt
control temperature of panel, slurry
necessary to control environment:
—temperature
—humidity
—light (use yellow - dichromate other similiar materials less sensitive to yellow light)

Use Mateer, mixer (includes pump)

Recirculating capability which can recycle all slurry except in the nozzle itself

—Dried screen weight (4mg/cm2)

—Spin (salvage position)

—excess slurry fed back into Mateer; reused/blended with new dispensable slurry
—excess slurry contains higher percent of "fines"
—new slurry must be added to excess slurry to maintain proper phosphor particle size distribution/concentration/viscosity
—excess slurry removed at additional positions goes into a trough and is removed for reclaiming at a different location using established phosphor reclaimation schedules

This reclaimed phosphor can later be blended with new and become a part of a stock slurry.

—Dry
(heat)

—Clean panel edges

REFERENCE: Meeting with Marty Royce and Stan Harper on 6/17/74.

—Air cooled

—Flood exposure (UV, about 30 secs.)
through the glass to start reaction/developing of glass contact side

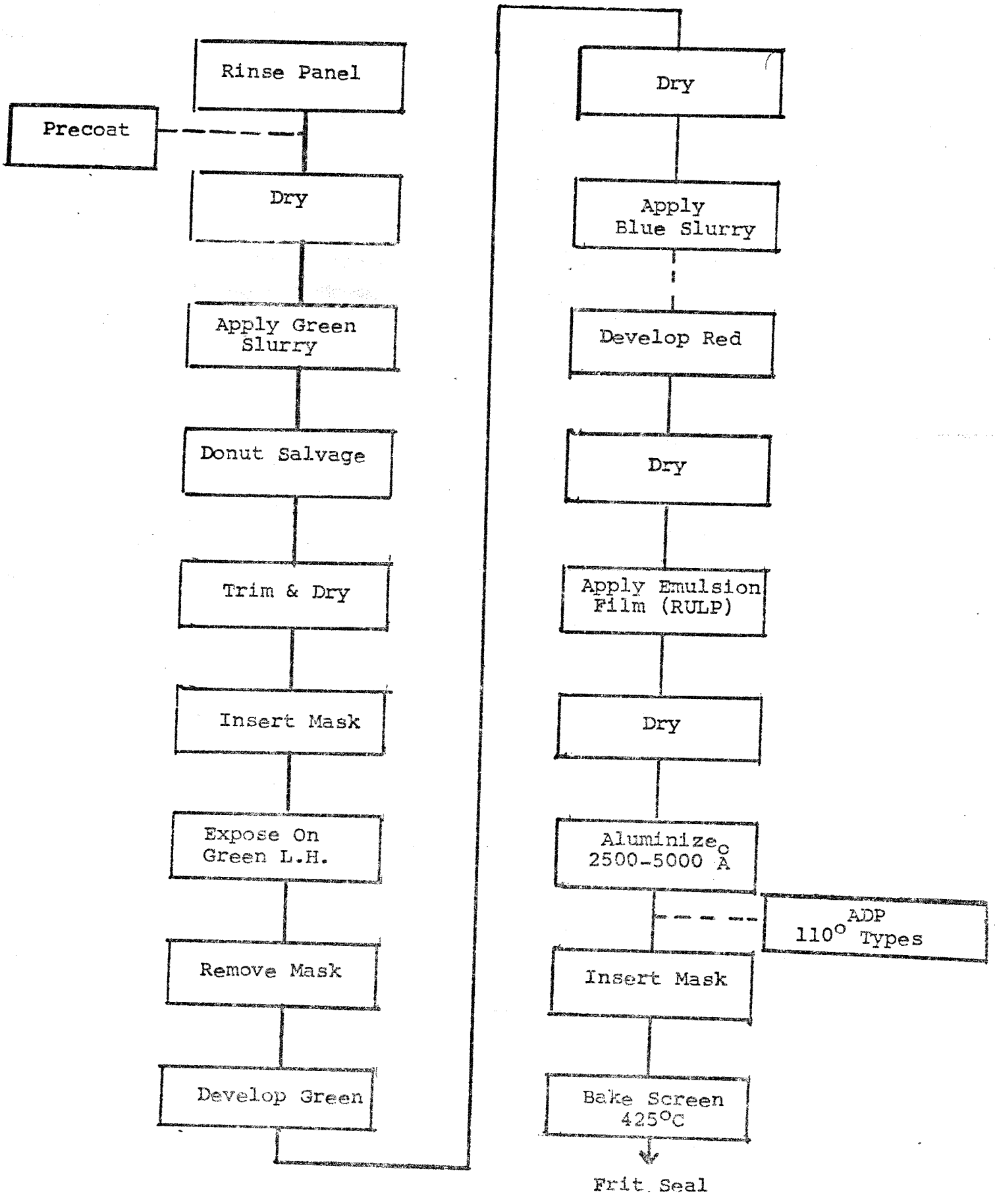
—Lighthouse exposure
green is first because it is least expensive phosphor
makes green phosphor dots insolvable
lighthouse exposure time (green-about 6-7 min., same for blue and red)

—Wash off
DeI water
leaves green dots, rest of phosphor washes off

—Inspect

—Repeat complete cycle for blue and then red

V. Phosphor Slurry Screen Application



SCREEN APPLICATION