

VC Campbell-#6  
DR Coffman-#6  
WJ Barber-#6  
WL Jones-#6  
RA Kafka-#6 (2)  
JM Lang-#6  
OL Mabey-#6  
IC Maier-#6  
RA Norman-#6  
DW Pugsley-#5  
PE Sullivan-#6  
LE Swedlund-#6  
EA Whitmore (2)

September 24, 1956

Trip Report

Corning Glass Works

RECEIVED

SEP 26 1956

V. C. CAMPBELL

Date: September 21, 1956

Object: Study of Corning Manufacturing Techniques.

Persons Contacted:	W. Linn	Sales
	C. Crawford	Manufacturing
	F. Belm	Manufacturing
	J. Graves	Manufacturing
	M. Hunt	Engineering

G. E. Personnel: D. Pugsley  
W. Hopkins

The initial portion of the visit was spent with Mr. M. Hunt relative to the lightweight 21"-110° bulb. Mr. Pugsley requested that Corning investigate whether a close control could be maintained on the panel-funnel seal area. He requested that they consider a  $1/16$ " on the seal width and height. This is required by TVRD to provide a bulb contour which will allow them to mount the bulb by a strap holding device. Mr. Hunt stated that they would investigate all possibilities to allow this criteria.

The remaining time was spent in reviewing bulb forming operations in Corning's Pressware Plant. The following information was obtained:

1. The current hourly operator plant compliment is 1800 people. The plant operates on a multi-shift setup on a seven day basis. Supervision service, technical, and other associated personnel approximate 300-400 in number.
2. It was stated that approximately 80% of the bulb panels receive a buffing and polishing operation. The face buffing is still done by hand on grinding wheels. However, all the rouge polishing is done by automatic, machine methods. Personnel approximate 50/shift on this operation.

3. Corning is planning to shock test on a 100% basis. We were asked to keep this confidential since they were trying to keep the information from Kimble. Mr. Kim stated that they were spending one million dollars to complete this operation. They felt that this would put them on a very favorable basis with pre-tested bulbs and a better customer guarantee on bulb quality.

4. The face panel presses are 11 position and total approximately 10 in number. The funnel spinners are 8 position and the number in operation is not definitely known but it is felt that one spinner will accomodate two panel presses. Annealing requirements total 17 lehrrs.

5. Glass melting is accomplished using two tanks. The glass "pull" totals 400 tons daily.

6. Buttoning and neck sealing are completely machine operated jobs.

7. Corning personnel felt that the lightweight 21"-110° bulb would be thermally stronger than any other previous 21" type. This should allow either faster processing or lower losses in screen and exhaust bakeout.

8. Electric sealing was observed on panel-funnel sealing operations. Two electrodes separate from the burner manifolds provide the power to do the job. Output/lathe is estimated at 20/hour on 21" sizes.

The factory visit was not excessively hurried. However, it is felt that the Corning representatives did not attempt to over-amplify their techniques.

W. F. Hopkins  
Mono. Picture Tube Prod. Engg.  
CATHODE RAY TUBE DEPARTMENT

WPH:jfe