

ILION PLANT QUALITY PROGRAM

J.P. Linde - Review of Ilion Plant Quality Program - Contd.

OTHER QUALITY IMPROVEMENTS -Contd.

2. Complaints of rusty Ejectors in the Model 700 Rifle have been a continuing problem. The problem has been associated with caustic coloring salts being trapped in the blind ejector hole, (Exhibit 6-29). This condition does not appear during processing.

In the past, bolts were washed as a separate operation after color. Due to continued reports of occasional rusty Ejectors, the process was changed in April, 1979 to an agitated alkaline wash, with a boiling hot water rinse. A steelguard dip was also added to minimize the possibility of rusting.

The complaints were reduced but a few were still appearing, which prompted another investigation. Bolts were sectioned which had bleed-out. We found that the Ejector hole runs into a chamfer which goes around the periphery of the bolt head and creates a void for salts, (Exhibit 6-30). So even though we were cleaning the hole, the salts would continue to bleed out of this hidden void. Also we found that an in-process cut for the brazing operation intersected the firing pin hole on a large percent of the bolts (6-31) offering a natural bleed hole for our washing operation. This explained why some bolts never had Ejector problems, while other bolts which had a blind cavity would weep salt, corroding the Ejector Spring.

We are presently working with Research to minimize the chamfer on the bolt head, and increase the braze clearance cut so it will always intersect the Ejector hole. This will provide a bleed hole for the washing operation.

3. Two new Polystyrene Molding Machines, (Exhibit 6-32, and 6-33) are now in production, providing improved inserts for packaging. Inserts molded on the new machines have no flashing and no loose beads, due to better fusing. This change should help to eliminate the loose beads in finished product packaging. We are also investigating the possibility of altering the finish and color of the inserts. By altering the color, the contrast between Black Oxide residue and the inserts would be reduced.