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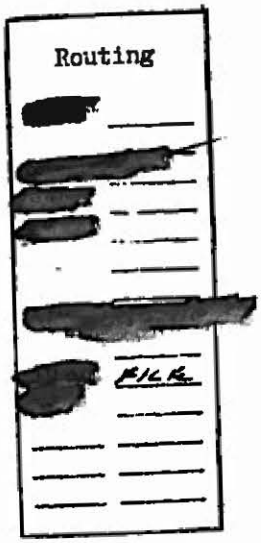

November 19, 1965

Distribution

HI-LO SWITCH PLATES, CF 1831 CABLE ASSEMBLY

The following results were obtained by spot checking the subject plates as received at Bendix. Swipe samples were taken with a single, firm wipe across the front or back surface of each plate and the swipe from each respective side was counted for five minutes to detect beta (tritium) contamination using a PC-3A Internal Gas Proportional Counter.

I. On October 21, 1965 we received 153 plates, and 25 plates were checked with results as follows:

CONTAMINATION IN DISINTEGRATIONS PER MINUTE

	FRONT	BACK
1	2,850	928
2	4,430	865
3	5,170	4,622
4	3,382	2,172
5	7,202	8,482
6	4,090	9,978
7	4,712	7,088
8	4,085	1,940
9	1,745	000
10	4,215	4,918
11	2,698	1,305
12	555	2,048
13	8,345	4,778
14	4,745	4,410
15	4,848	2,422
16	4,560	9,375
17	3,475	1,858
18	4,205	6,050
19	2,320	1,262
20	522	000
21	000	000
22	428	000
23	1,300	000
24	35,395 (HIGH)	34,100 (HIGH)
25	14,055 (HIGH)	5,960

II. On November 12, 1965 we received 67 plates, and 15 plates were checked with results as follows:

CONTAMINATION IN DISINTEGRATIONS PER MINUTE

	FRONT	BACK
1	15,568 (HIGH)	6,685
2	6,486	5,371
3	18,971 (HIGH)	15,849 (HIGH)
4	11,802 (HIGH)	5,076
5	8,129	2,429
6	6,546	2,978
7	5,824	3,605
8	9,427	2,917
9	5,073	24,341 (HIGH)
10	6,388	14,132 (HIGH)
11	1,810	3,658
12	7,300	3,190
13	6,144	3,636
14	4,820	2,454
15	4,012	2,149

III. On October 18, 1965 [redacted], D/261, forwarded four plates, each with a matte finish on the front. These were checked and results are as follows:

CONTAMINATION IN DISINTEGRATIONS PER MINUTE

	FRONT	BACK
1	000	2,066
2	2,590	3,988
3	2,312	1,139
4	2,241	2,258

IV. On August 9, 1965 we received 106 plates, and 11 plates were checked with results as follows:

CONTAMINATION IN DISINTEGRATIONS PER MINUTE

	FRONT	BACK
1	1,368	2,344
2	6,998	1,827

IV. (Continued)

CONTAMINATION IN DISINTEGRATIONS PER MINUTE

	FRONT	BACK
3	3,176	8,176
4	3,222	4,622
5	4,161	3,771
6	3,198	7,707
7	5,702	1,744
8	6.551	4,502
9	27,142 (HIGH)	9,541
10	21,348 (HIGH)	13,383 (HIGH)
11	10,014 (HIGH)	5,870

NOTES:

1. ECN 7111039P2 dated June 24, 1965 on drawing 1442078, calls out a maximum surface contamination on either the front or back surface not to exceed 1×10^4 disintegrations per minute.

2. One microcurie = 2.22×10^6 disintegrations per minute.

Based on the aforementioned results, it is our opinion that there will be no significant radiation exposures in handling these plates. In that some of the contamination levels are over that called out in ECN 7111039P2, it is suggested that the vendor be contacted and provided with a copy of the aforementioned results for his reference as it is believed the plates can be delivered to meet the 1×10^4 disintegration per minute contamination level requirement when received at Bendix if attention is given by the vendor during some stage in his operations to contamination during processing. We would agree with the vendor that the tritiated phosphor will diffuse into the coating material, but do not agree that it will diffuse through the coating material to the back side of the plates to produce high contamination levels during the duration of time from manufacture until we receive them at Bendix.