



After the extrusion, stretch straightening, and packaging the plates was completed, another complete survey of the aforementioned floor areas and fixtures was accomplished.

The asbestos on the floor directly in front of the press was contaminated in several spots to levels of 1M. All of the asbestos was rolled very carefully inside the vinyl plastic which was underneath it. All the plastic that was used to cover the run-out table, stretch straightener table, cooling table, and other fixtures, was carefully folded and returned to ANL. No external contamination was detected on the packages returned to ANL. None of the toe rubbers used in the operation was found to be contaminated.

The corrugated jaws of the stretch straightener as well as the shears used to cut the butt of the extrusion from the extruded portion were found to be contaminated to levels of 20M. These items were cleaned to no activity detected by the Metallurgy personnel.

The pusher (dummy) block which was too hot thermally to be surveyed at that time was returned to ANL where it was cleaned to no activity detected and returned to Titus Metals, Inc. The three dies that were used were Argonne property and returned to ANL. The die holder and die backer ring were returned to ANL to be cleaned prior to being returned to Titus Metals, Inc. The one-gallon can containing the water used to cool the pusher (dummy) block was also returned to ANL.

Smears were taken on the inside of the extrusion press cylinder. No contamination was detected on these smears with a portable instrument nor in an alpha scaler when so counted upon return to ANL. All accessible areas of the extrusion press were surveyed or smeared and no contamination was detected.

A survey of the shoes of the Titus Metals, Inc., employees who were actively engaged in the operation indicated no detectable contamination. The gloves, coveralls, and work clothes of all persons actively engaged in the operation were bagged and returned to ANL for laundering.

In addition to the floor area and fixtures in the shop where the extrusion was accomplished, the offices, rest rooms, and clothes change areas were surveyed and no contamination was detected.

The floor sweepings and the brooms used to sweep the entire area after completing the operation were surveyed and no contamination was detected on or in either.

The extrusion operation was accomplished in such a manner that no contamination was detected at the Titus Metals, Inc. plant upon completion of the operation. This was possible only through the very careful handling techniques and precautionary measures employed by the Metallurgy and Special Materials personnel.

*G.T. Lonergan*  
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GTL:vsd

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Order of Extrusions at Titus Metals, Inc., Waterloo, Iowa

Heat Number 1		Heat Number 2		Heat Number 3	
Order #	Billet #	Order #	Billet #	Order #	Billet #
1	3	21	37	40	44
2	9	22	33	41	21
3	4	23	36*	42	43
4	5	24	38	43	46
5	6	25	28	44	45
6	13	26	35	45	41
7	17	27	24*	46	42
8	8	28	22		
9	12	29	40		
10	16	30	25		
11	20	31	29		
12	10	32	30		
13	1	33	31		
14	2	34	27		
15	18	35	23		
16	15	36	39		
17	7	37	32		
18	14	38	26		
19	19	39	34		
20	11				

\*Billet stuck in die and was not completely extruded

After the above was accomplished one cleanout block, one Al billet, and one Al-Ni extrusion was run through the press.