

FROM: **Sylvania Electric Products, Inc.**
Hickory Hill, N. Y.
Hilton Hall

DATE OF DOCUMENT
4-27-62

DATE RECEIVED
4-30-62

NO.
4323

LTR. ☒ MEMO: ☐ REPORT: ☐ OTHER: ☐

TO: **Mussbauer**

ORIG. ☒ CC: ☐ OTHER: ☐

ACTION NECESSARY ☒
NO ACTION NECESSARY ☐

CONCURRENCE ☐
COMMENT ☐

DATE ANSWERED
BY:

CLASSIF. **U** POST OFFICE
REG. NO.

FILE CODE
40-662

DESCRIPTION: (Must Be Unclassified)

Ltr. furnishing following addtl info:

REFERRED TO	DATE	RECEIVED BY	DATE
Mussbauer:	5-1		
w/ File cy & File			
cy for Compliance			
<i>Layfield</i>	5/1		

ENCLOSURES (1 cy of each rec'd)

- 1-Ans to questions 1-6
- 2-Flow Sheet
- 3-fig Procedure for Aluminum.....
- 4-"APP" 1-b- Process Flow Diagram
- 5-Revised Layout Ref Prin (ADDTL. CYC REQUIRED OF THIS ITEM)

REMARKS:

M R Distribution: 1 - ALC PDR

U. S. ATOMIC ENERGY COMMISSION

MAIL CONTROL FORM FORM AEC-326S
(8-60)

A/60

SYLVANIA

SYLVANIA ELECTRIC PRODUCTS INC. A Subsidiary of GENERAL TELEPHONE & ELECTRONICS CORPORATION



Wells 1-3500

Twx No. Hkvl 2358

DOCKET NO. 40-682

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Sylcor Division

Cantiague Road
Hicksville, N. Y.

April 27, 1962

Mr. Donald A. Nussbaumer, Chief
Source & Special Nuclear Materials Branch
Division of Licensing and Regulation
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Nussbaumer:

Subject: Source Material License Number SMB-297

Attached, as requested in your letter of April 13, 1962, are a floor plan of our facility, flow diagrams of representative processes and answers supplied by our Safety Engineer to the questions posed in your letter.

We trust this information will enable you to complete your review of our application but should anything further be required we will be happy to offer additional data.

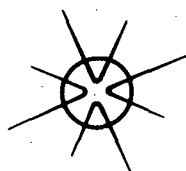
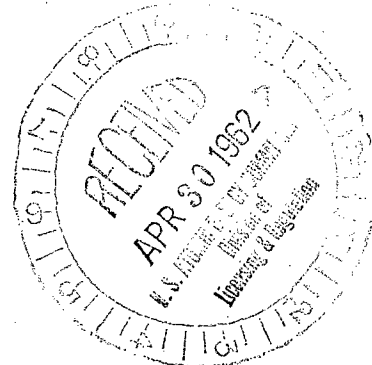
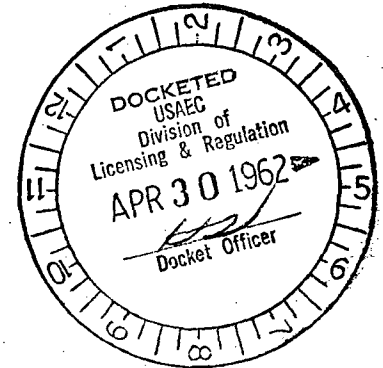
Very truly yours,

Milton Boll
Milton Boll
Contract Administrator

MB:gs

Copy Supplied
Public Information Branch
Div. of Compliance

4/30/62-RRQ



Item #2

Not adequate

Melting operations and machining operations are the only operations at which dust or fume is generated. The melting operation is equipped with a ventilation system connected to an electrostatic precipitron manufactured by Trion. The machining operations, such as the cut-off wheel and the centerless grinder, are completely enclosed under a negative pressure with a ventilation system connected to an electrostatic precipitron manufactured by Trion.

Item #3

Only samples taken?

Air samples are taken of each operation in item #2 semi-annually. Samples are taken in the operators' breathing zone and the general room area. Air samples are taken quarterly on areas around the property perimeter and where ducts terminate at the roof. The air samples are taken on 1 1/8" diameter "Whatman" #41 filter paper, using a small vacuum pump drawing air at a rate of approximately 30 liters per minute. The air samples are counted 24 hours later (to permit radon activity to disintegrate) in a Baird Atomic Gas Proportional Flow Counter. This counter consists of a Model WFC-167 Gas Flow Counter, a Model 510 Single Channel Pulse Height Analyzer, a Model 215 Non-Overloading Amplifier, a Model 131A Glow Tube Scaler, a Model 231 Preamplifier, and a Model 432 Ratemeter.

Item #4

There are no liquid wastes.

please explain why on AEC-2 wastes

Item #5

Bi-weekly surveys are made for alpha contamination of areas in which unclad uranium is processed. The contamination indice and the corrective action taken is as follows:

<u>Contamination Level</u>	<u>Time Allocated to Decontaminate</u>
0 to 100 dpm/100 cm ²	2 weeks
100 to 500 dpm/100 cm ²	1 week
500 to 2000 dpm/100 cm ²	24 hours
over 2000 dpm/100 cm ²	Immediately

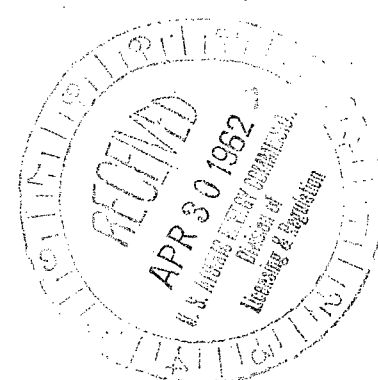
This is for transferable contamination.

Item #6

find out

Shower facilities are available. The locker room has 2 sets of lockers, one for street clothes and one for work clothes. The clothing is cleaned by Interstate Laundry Company, an AEC licensed facility. Personnel occasionally monitored with an Eberline Gas Proportional, PAC 3G Counter.

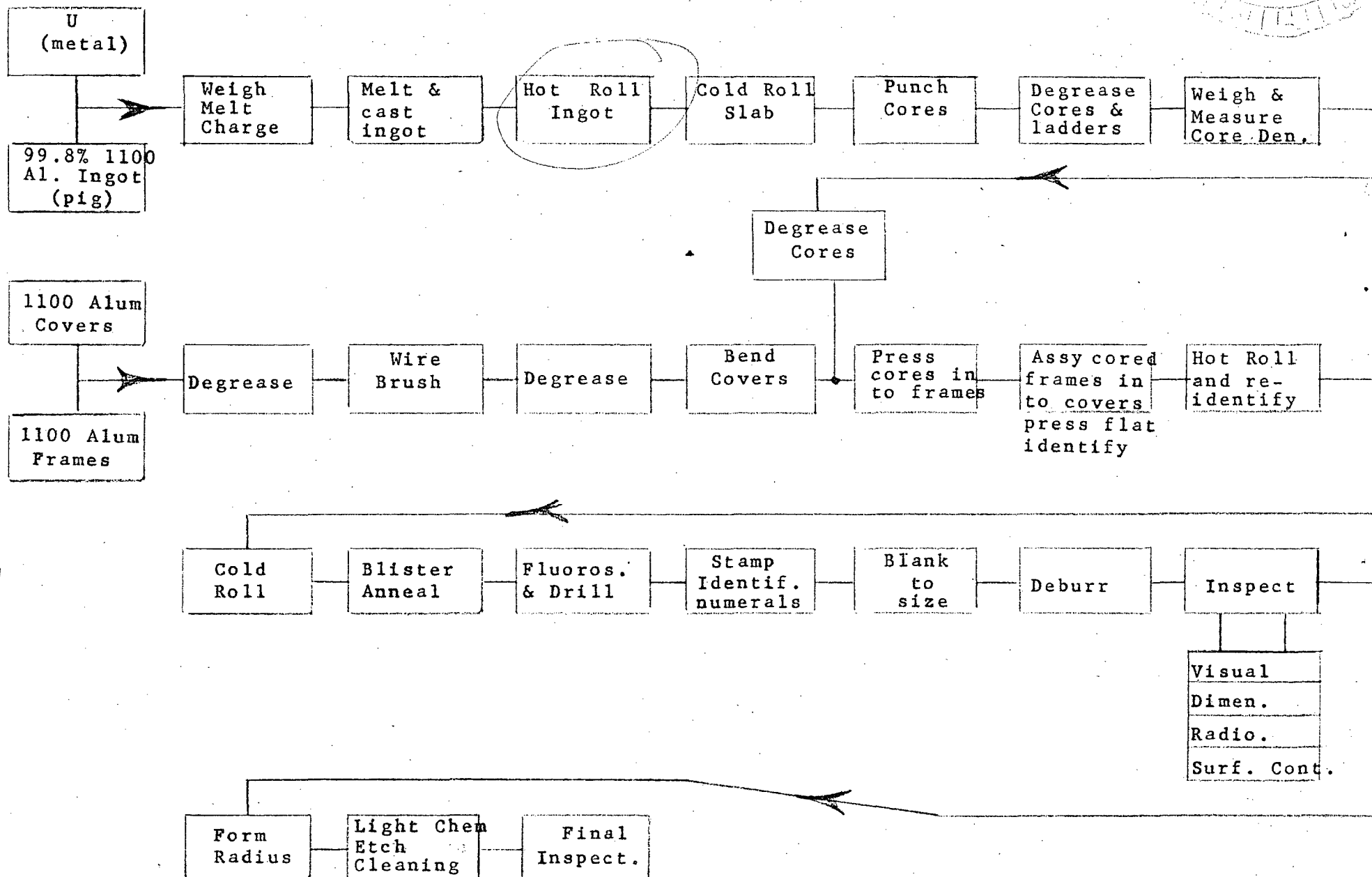
Diagram showing flow pattern



URANIUM - ALUMINUM ALLOY FUEL PLATE - FLOW SHEET

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APR 30 1962
U.S. ARMY
ENGINEERING CENTER
PITTSBURGH, PA

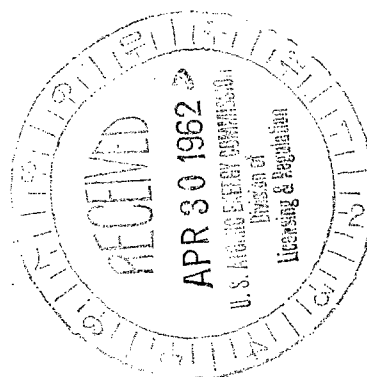
"As Recd."



SYLCOR DIVISION
SYLVANIA ELECTRIC PRODUCTS INC.
Hicksville, N.Y.

MANUFACTURING PROCEDURE
FOR ALUMINUM TYPE FUEL ELEMENTS

1. Melt Uranium and Aluminum to form alloy.
2. Take dip sample for Uranium determination.
3. Hot roll ingot into a slab.
4. Punch cores. *drawn*
5. Weigh cores for density determination of Uranium content.
6. Press cores into picture frames.
7. Clad core picture-frame assembly.
8. Hot roll.
9. Cold roll.
10. Slabster anneal and inspect.
11. Fluoroscope to position core for blanking fuel plates.
12. Blank and identify fuel plates.
13. Radiograph one plate per melt for homogeneity.
14. Form curved fuel plates.
15. Clean and final inspect.
16. Mechanically assemble fuel plates to side plates.
17. Assemble and plug weld end fittings to fuel section.
18. Final assembly machining.
19. Final inspection.

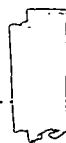


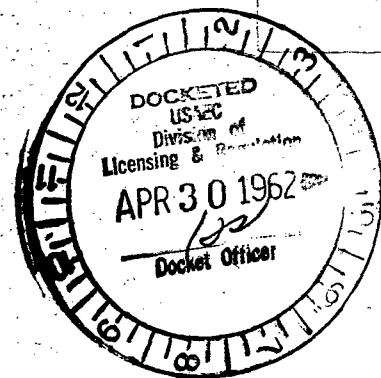
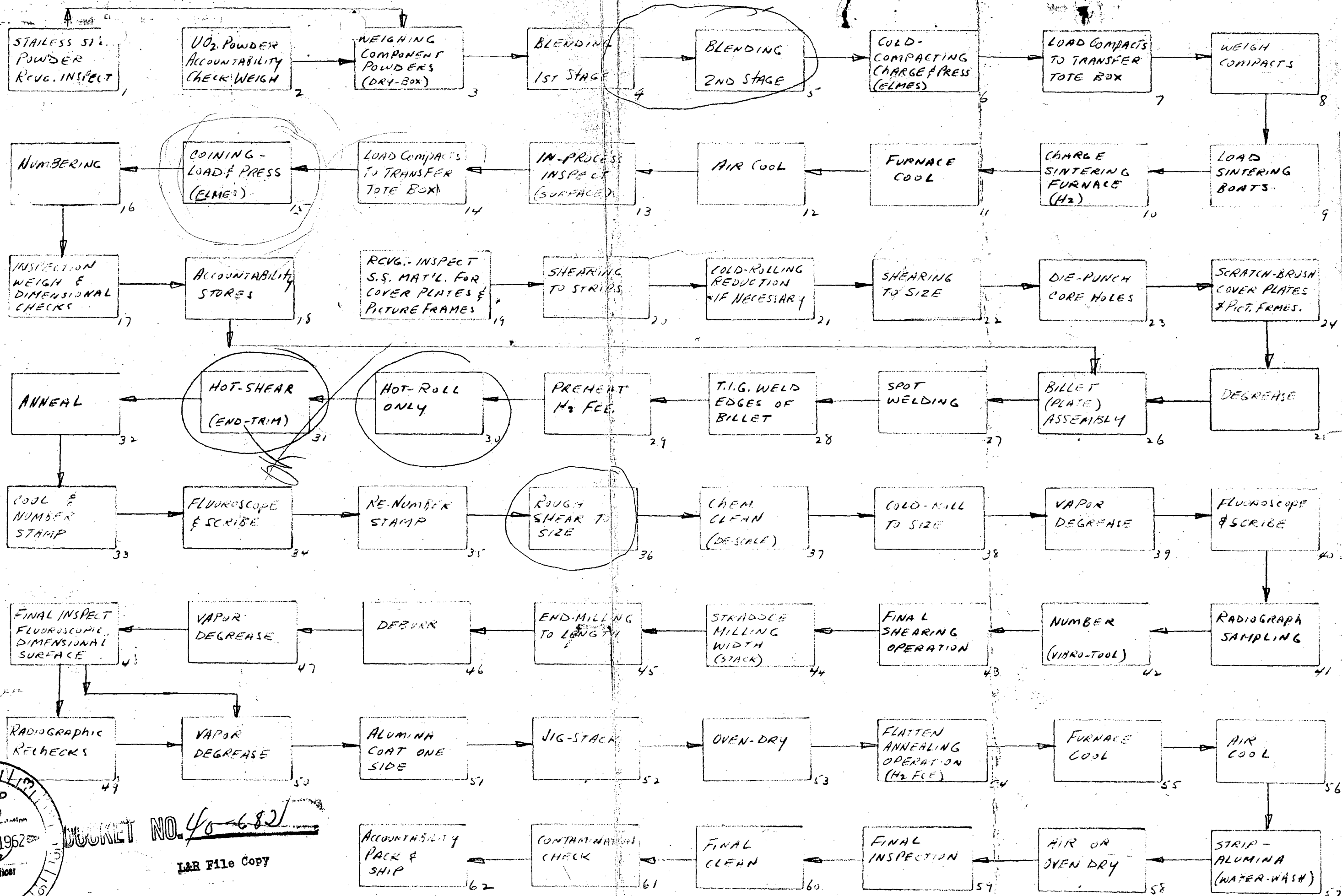
4328

**THIS PAGE IS AN
OVERSIZED DRAWING OR
FIGURE,
THAT CAN BE VIEWED AT THE RECORD
TITLED:**

“Floor Plan of Facility”

**WITHIN THIS PACKAGE... OR
BY SEARCHING USING THE**

D-01 



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"APPR" 1-6- PROCESS FLOW DIAGRAM - 4328