For Office Use Only

Type .....
Permit No. .....
Date rec'd .....
Date Issued .....
Date Expired .....
New ..... Renewal ..✓.....
DOE Drainage Basin ...08.....
Expired Permit No. ...2641.....
Advertising needed ...No.....

USEPA SF
1443950

DEPARTMENT OF ECOLOGY
State of Washington

In accordance with Chapter 90.48 RCW and Chapter 372.24 WAC. Application is hereby made for a permit to discharge wastes into the state waters

A. Name of Company Mastercraft Metal Finishing

B. Mailing Address 1175 - Harrison St. Seattle Wash. 98109

C. Location of Plant Discharging Waste if Different From Above same

Phone MA-2-6350

D. Specific Type of Industry Metal Polishing and Electroplating

E. Name of Waterway Receiving Waste Discharge Metro Sewer System

F. Location of Industrial Waste Discharge Point (s) Harrison and Minor No-Seattle Wa.

G. Raw Water Supply: Source city Volume 3600 Gallons/Day

G.1 Authorization For Use: Recorded Right No. _____ Public Supply City of Seattle

Other _____
(Specify)

H. Waste Discharge Volumes:

	Average Gallons/Day	Maximum Gallons/Day
Industrial Processing (as rinse water)	3600	4800
Cooling		

I. Plant Operation:

	Days per Year	Number of Employees per Shift Day	Night	Swing
Average	250	3	0	0
Maximum	250	4	0	0

J. Raw Materials and Chemicals Used in Processes:

Brand Name	Chemical, Scientific or Actual Name	Quantity Used Per ~~Day~~ YEAR Average	Maximum
	Nickel Sulphate	200 lbs.	
	Nickel Chloride	100 lbs.	
	Boric Acid	100 lbs.	
	Copper Cyanide	100 lbs.	
	Chromic Acid	100 lbs.	
	Sulphuric Acid	30 Gallons	

K. Production:

Item	Quantity Produced Per Day* Average	Maximum
Service:		
To Customers	Variable	

L. Sanitary Wastes: Treatment None Discharged to Sewer

M. Explain any seasonal variation in waste discharge volumes, plant operations, raw materials and chemicals used in processes, and/or production: None

N. Give a detailed description of the sources of all industrial wastes within your industry. Describe in detail the treatment given each of these wastes. Include in this description the disposal methods used for these wastes and also for any sludge collected by your waste treatment system. Include a schematic flow diagram showing the sources of all wastes and their flow pattern. Submit this information with your application as Exhibit 1. Litmus Paper P.H. Test 11/17/71 — 5.3 above test taken in Presence of Thomas McCann - Distr. Engr.

O. Describe in detail the physical and chemical properties of the effluent to be discharged into state waters. Include in this description the sampling and analytical methods used to derive this information. Submit this information with your application as Exhibit 2.

P. Briefly describe any additional treatment or changes in waste disposal methods you are planning or have under construction. Submit this information as Exhibit 3. Include all information for previous questions, where additional space is necessary as part of Exhibit 3. Also include any additional information or comments you feel necessary to clarify this application with Exhibit 3.

The information given on this application is complete and accurate to the best of my knowledge.

Harvey R. Hendrickson
Signature

HARVEY R. HENDRICKSON
Printed

Owner - Mgr.
Title

11/17/71
Date

*Please specify units. For example: Tons per day, pounds per day, barrels per day.

3. Describe how raw chemicals and hazardous materials are stored. Have steps been taken to insure that spills resulting from accidental spillage or ruptured containers will not enter a waterway or sewer?

Raw chemicals & materials all stored in factory containers in separate areas of facility. All containers are inspected for leakage or damage upon arrival from supplier & after each use. Damaged containers are not accepted or are disposed of.

4. Products Manufactured or Processed:

Products	Quantity and Unit Average	Quantity and Unit Maximum
1. Refinishing of Hdwe		
2. for, Cars, Boats, plumbing,		
3. Motorcycles, Antiques,	guesstimate 500,000 pcs per year	
4. Bdes Hdwe, Surgical instruments,	unable to calculate sq ft.	
5.		

Section C Plant Operational Characteristics:

1. Plant Operations:

	Days per year	Number of Employees per Shift Day	Night	Swing
Average	260	4	—	—
Maximum	260	4	—	—

2. Explain any seasonal variation you may have in waste discharge volumes, plant operations, raw materials, and chemicals used in processes, and/or production:

No change

3. Give a detailed description of the sources of all industrial waste within your industry. Describe in detail the treatment given each of these wastes. Include in this description the disposal methods used for these wastes and also for any sludge collected by your waste treatment system. Include a schematic flow diagram showing the sources of all wastes and their flow pattern. Include this information with your application as Exhibit 1.

4. Metal finishing and metal etching industries give a breakdown of capacity and number of tanks by solution type, concentration, and estimated dragout. Identify tanks containing significant quantities of phosphorous, nitrogen, heavy metals, cyanide and etching solutions that concentrate heavy metals. Describe what precautions have been taken to contain and prevent discharge of plating solutions spilled as a result of ruptured or leaking tanks. Include this information with your application as Exhibit 2.

Section D Water Consumption and Loss:

1. Source of Supply City of Seattle

2. List water consumption within the plant.

a. Industrial Processing	4000 gals./day	4300 gals/day
b. Cooling		
c. Boiler Feed	50 gals/day	60 gals/day
d. Water Incorporated into Product		
e. Other (Specify) Sanitary waste	50 gals/day	60 gals./day

Raw water treatment (specify water conditioning chemicals used) NONE

3. List discharge or water losses to:

	Average Gal./Day	Maximum Gal./Day
a. Municipal Sewer (Industrial and Sanitary waste water	4100	4300
b. Surface waters and storm sewers (specify)	/	/
c. Waste haulers	/	/
d. Evaporation	minimal	minimal

4. Describe all waste water treatment equipment or processes in use: Over the tank draining for reduction of drag-out. Combined caustic soda & chrome rinse for ph. adjustment & chrome reduction. Good Housekeeping practices.

5. Planned waste treatment improvements: (Submit on separate sheet as Exhibit 3). Describe any additional treatment or changes in waste disposal methods in planning or under construction.

6. Give any additional information or comments you feel necessary to clarify this application as Exhibit 3. Include all information for previous questions, where additional space is necessary as part of Exhibit 3.

7. The information given on this application is correct and accurate to the best of my knowledge.

Larry C Beckley
Signature

LARRY C BECKLEY
Printed

7/15/76
Date

Owner - Mgr.
Title

* Please specify units. For example: Tons/Day, pounds per day, barrels per day, etc..

Exhibit # I

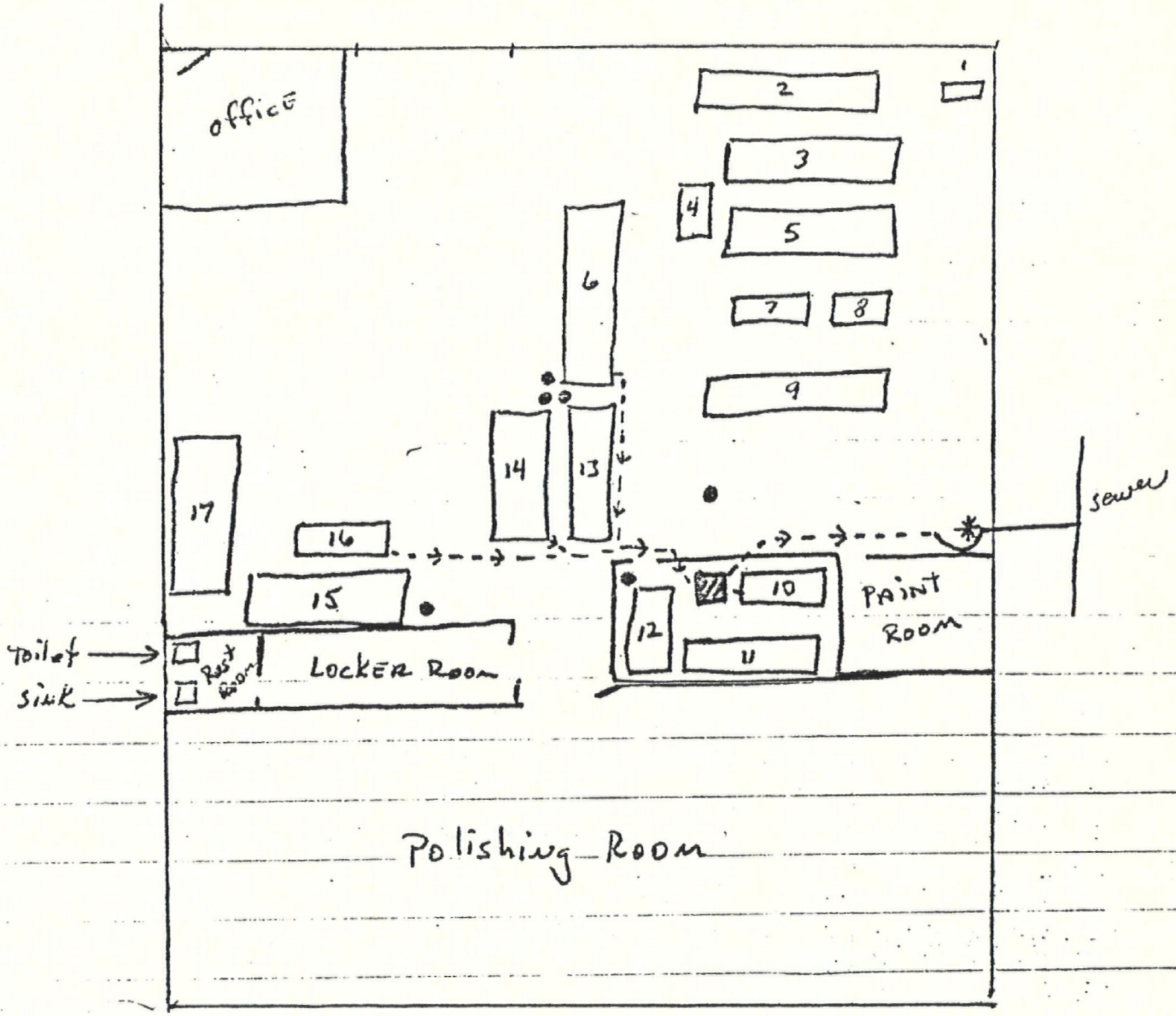
of tanks	Solution type	Gallonage	Heavy metals concentration	Estimated Drag out
1	Copper	300	4 oz./gal	1 pint/day
1	Bright Nickel	600	12 oz/gal	1 quart/day
1	low ph Nickel strike	25	.8 oz/gal	1 gallon/year
1	Brass	100	4 oz/gal	1 gallon/year
1	Bronze	100	4 oz/gal	1 gallon/year
1	Chrome	400	40 oz/gal	1/4 pint/day
1	Gold	15	1 oz/gal	-0-

Ruptured Tank precautions

All new tank are built with double wall construction
All old tanks are being Replaced with double wall tanks

Exhibit I. Flow Diagram

1.



▨ Sump

* incoming water backflow prevention device

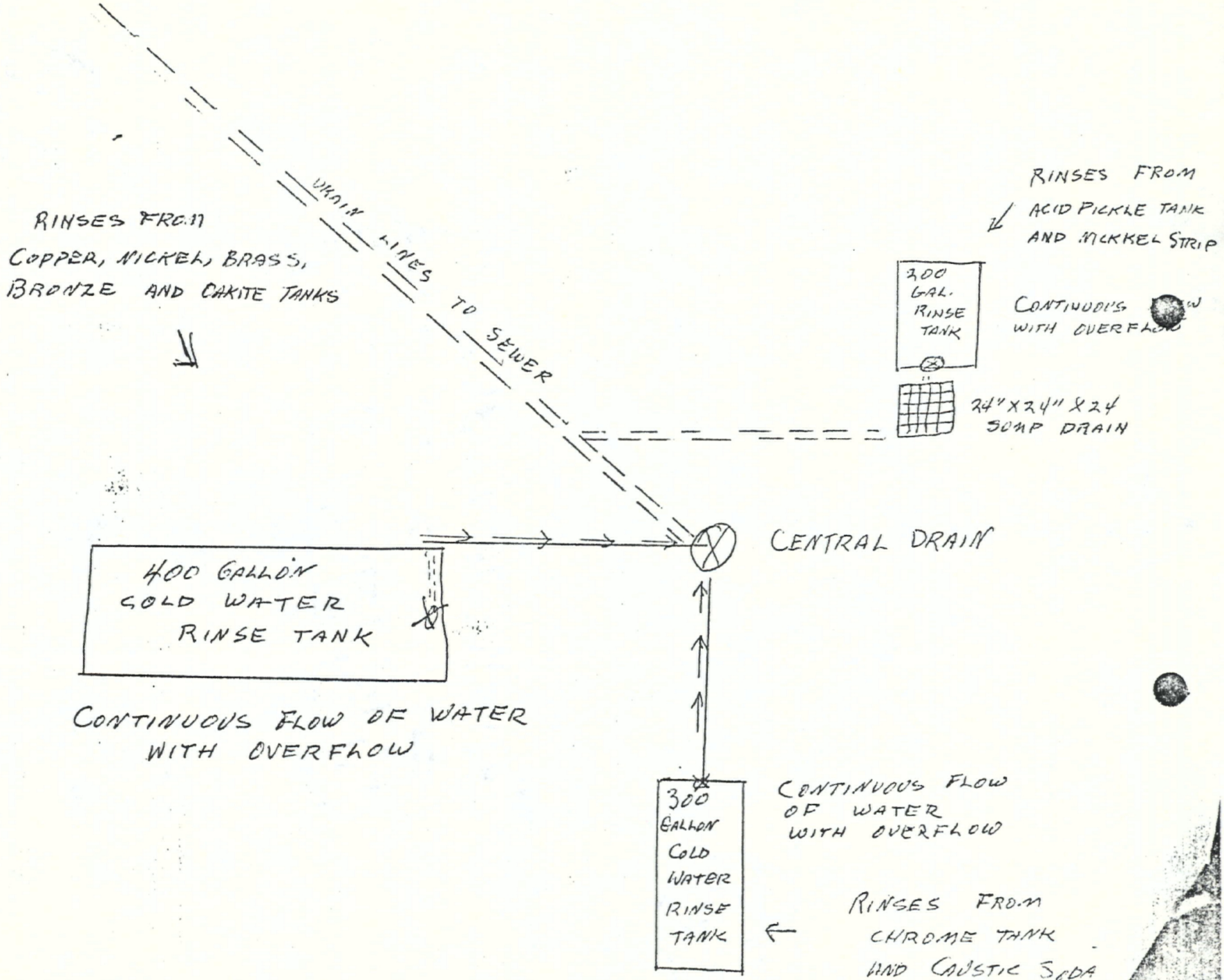
● Hose bibs with siphon breakers

1	gold	10	Cold water Rinse
2	Empty spare tank	11	Acid pickle
3	copper	12	Strip
4	Acid dip	13	Cleaner
5	Empty spare tank	14	Hot water Rinse
6	Cold water Rinse	15	cleaner
7	Bronze	16	Cold water Rinse
8	Brass	17	Chrome
9	Nickel		

Drawing not to scale.

2. For treatment SEE page 4 question 4.

EXIBIT - 1


DRAIN LINES TO SEWER
RINSES FROM
COPPER, NICKEL, BRASS,
BRONZE AND CAKITE TANKS
RINSES FROM
ACID PICKLE TANK
AND NICKEL STRIP
300 GAL. RINSE TANK
CONTINUOUS FLOW WITH OVERFLOW
24"X24"X24 SOAP DRAIN
CENTRAL DRAIN
400 GALLON COLD WATER RINSE TANK
CONTINUOUS FLOW OF WATER WITH OVERFLOW
300 GALLON COLD WATER RINSE TANK
CONTINUOUS FLOW OF WATER WITH OVERFLOW
RINSES FROM
CHROME TANK
AND CAUSTIC SODA

7/76

Exhibit III

planned waste treatment improvements

At this time we are planning a major remodeling program designed to give us increased & more efficient floor space within our present facility.

One of the major improvements this space will provide for us is, the room to install counter flow rinsing and an area for dead rinses that can be used to further reduce drag out. By using dead rinses for tank additions at the end of the work period will most effectivly nearly eliminate the drag out problem. The dead rinses would first be installed for the chrome & copper plating baths, then the nickel bath. These three baths are our prime problem areas for drag out. although, our relative small volume as a pollutant source, and, our good housekeeping practices keeps our drag out at an extremly low level.

0.33 gals.