

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

A194642177

FACILITY: Michigan Extruded Aluminum		SRN / ID: A1946
LOCATION: 205 Watts Road, JACKSON		DISTRICT: Jackson
CITY: JACKSON		COUNTY: JACKSON
CONTACT:		ACTIVITY DATE: 10/26/2017
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Unannounced inspection.		
RESOLVED COMPLAINTS:		

Minor Source-**Facility Contacts**

Travis Curry-Plant Manager

travis@michiganextruded.com

ph 517-764-5400

Larry Barnhart-Maintenance

Website: <http://www.michiganextruded.com/>**Purpose**

On October 26, 2017, I conducted an unannounced compliance inspection of Michigan Extruded Aluminum (Company) located at 205 Watts Road, Jackson, Michigan. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules.

Facility Location

The facility is in the city of Jackson surrounded by residential homes on all sides. See attached aerial photo of facility.

Facility Background

There is no record of previous air quality inspections at this facility.

Regulatory Applicability

Natural gas-powered generator for emergency office lighting 0.05 MMBtu/hr. (exempt per Rule 285(g)). (Also exempt/grandfathered from 40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.)

40 CFR Part 63, Subpart RRR - National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production does **not** apply as the facility is not considered a secondary aluminum production facility since it meets the following exemption:

"For purposes of this subpart, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities are not considered to be secondary aluminum production facilities if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns"

Furnaces/Ovens are all exempt from PTI requirements as BTU/hour ratings are all well below Rule 282 thresholds. Also die casting machines exempt per Rule 285 (2)(I).

The caustic washing stations appears to be exempt per Rule 281 (2) (K)-an aqueous based parts washing.

Arrival & Facility Contact

No visible emissions or odors were observed upon my approach to the Company's facility. I arrived at 9:10 am, proceeded to the facility office to request access for an inspection, provided my identification and spoke with Lank Roark-Human Resources, Larry Barnhart(LB)-Maintenance and then finally Travis Curry (TC)-Plant Manager who accompanied me on the inspection. I informed them of my intent to conduct a facility inspection and to review the various records as necessary.

All the facility personnel extended their full cooperation and fully addressed my questions.

Pre-Inspection Meeting

LM outlined that there around 117 employees and they generally operate 5 days a week for 3 shifts.

They take recycled aluminum billets, heat them up and then place the metal into an extrusion press and force the aluminum through a die pattern to make a finished product.

They have 2 billet heating furnaces, 2 extrusion presses, and 2 aging ovens. They also have an aqueous caustic washing station used to clean the dies used in the presses and neutralization tank process which adds sulfuric acid to the caustic waste solution to adjust the pH before disposal. (Note: This process is slated to be replaced by the end of the year. They have installed a large holding tank for the waste caustic. An outsider entity will be taking the waste caustic and using it for another process.)

They process approximately 1.6 million pounds of aluminum per month.

They have one emergency generator used for office lightning. (See attached photo.)

Onsite Inspection

LM and TC gave me a tour of the facility. First, they showed me one of the billet heating furnaces and associated press. (See attached photos.) Emissions from the furnace go out an exhaust stack. There is also a large roof exhaust fan that is directly above the presses. There were no visible emissions except when a mold release agent is applied which generates smoke for less than one minute. (See photo.) Attachment (1) is the MSDS for the mold release agent. It is mostly wax with some boron nitride. TC estimated they use about 50 pounds worth over a six month period. The smoke goes up through the roof exhaust fan outlet. Temperature of the furnace is around 800 degrees. (Melting point of aluminum is 1200 degrees F.) The aluminum is heated up just enough to make it into a playdough type material so that it can be formed/extruded. The billets that were being added to the furnace appeared to be clean.

Next, we went to the other furnace/press. It operating nearly identically to the first and about the same size. (See attached photos.)

We looked at one of two aging ovens. The pressed aluminum goes into these ovens for several hours at around 350 degrees F. to finish curing the final product. There is an exhaust stack associated with each one and also an open roof exhaust/ fan above the oven as well.

We looked at the caustic washing station that consists of 3 open tanks which emissions are routed to 2 exhaust stacks. They clean the dies from presses that have some residual aluminum on them so that they can be reused. The caustic (sodium hydroxide) comes in drums that contain 50% caustic. The working solution is diluted down to 25% caustic. (See photos.)

Directly next to the caustic washing station is a small chemical neutralization tank. Waste caustic is feed into it and then some concentrated sulfuric acid from barrels is added to lower the pH to 7. There is an exhaust stack associated with this process. TC indicated that he hopes this process will be gone by the end of the year.

We completed the facility tour by doing a roof inspection. The roof was accessed via a small door above the lunch room. The roof was icy/slippery so only some distance photos could be taken of the stacks/exhaust fans. The roof appeared to be excellent condition with no fall out or opacity noted. (See photos.)

Post-Inspection Meeting

I held a brief post-inspection meeting with TC. I indicated to him that I didn't note any problems but would need to check on few things to make sure and that I would get back to them if I discovered any issues. TC indicated that he would like to be given a copy of the inspection report when completed.

I thanked the facility personnel for their time and cooperation, and I departed the facility at approximately 10:15 am.

Compliance Summary

The Company is in compliance.

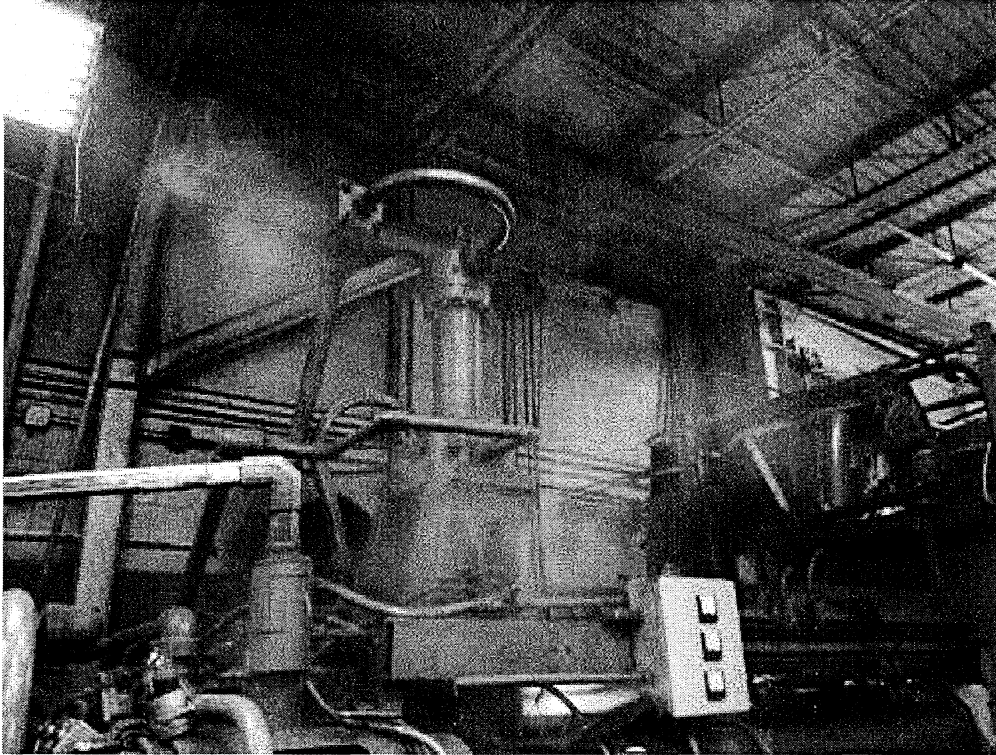


Image 1(Furnace smoke) : Smoke from furnace after mold agent applied.



Image 2(Age oven name plate) : Age oven name plate

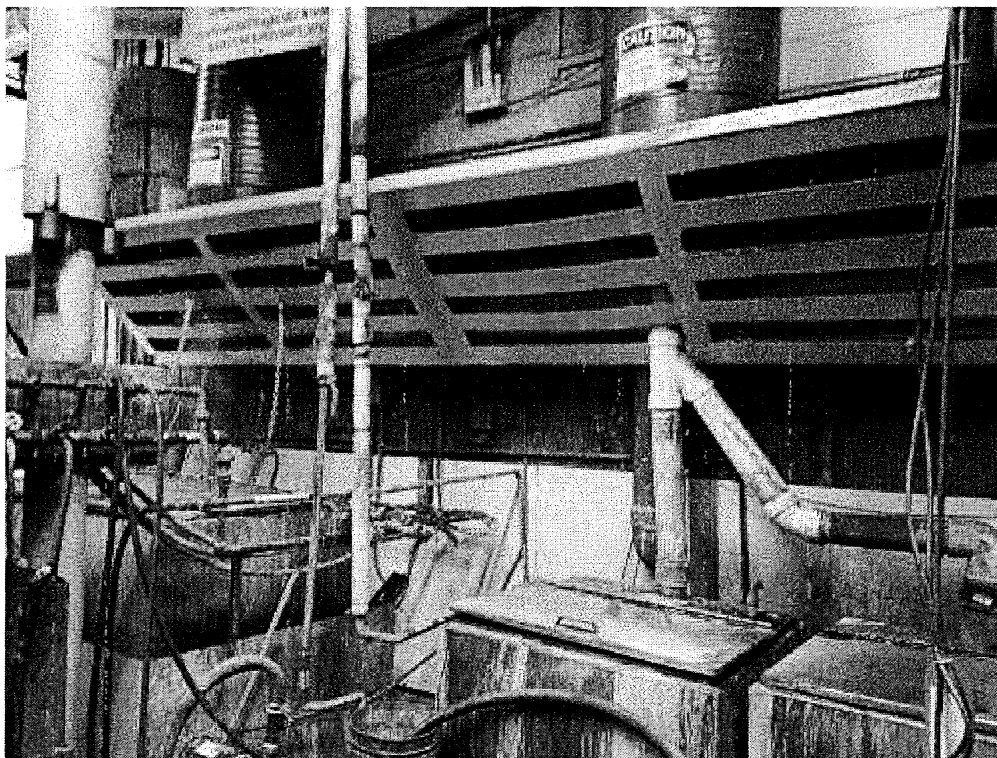


Image 3(caustic washing) : Caustic washing tanks. Note exhaust hood.



Image 4(Neutralization tank) : Neutralization tank

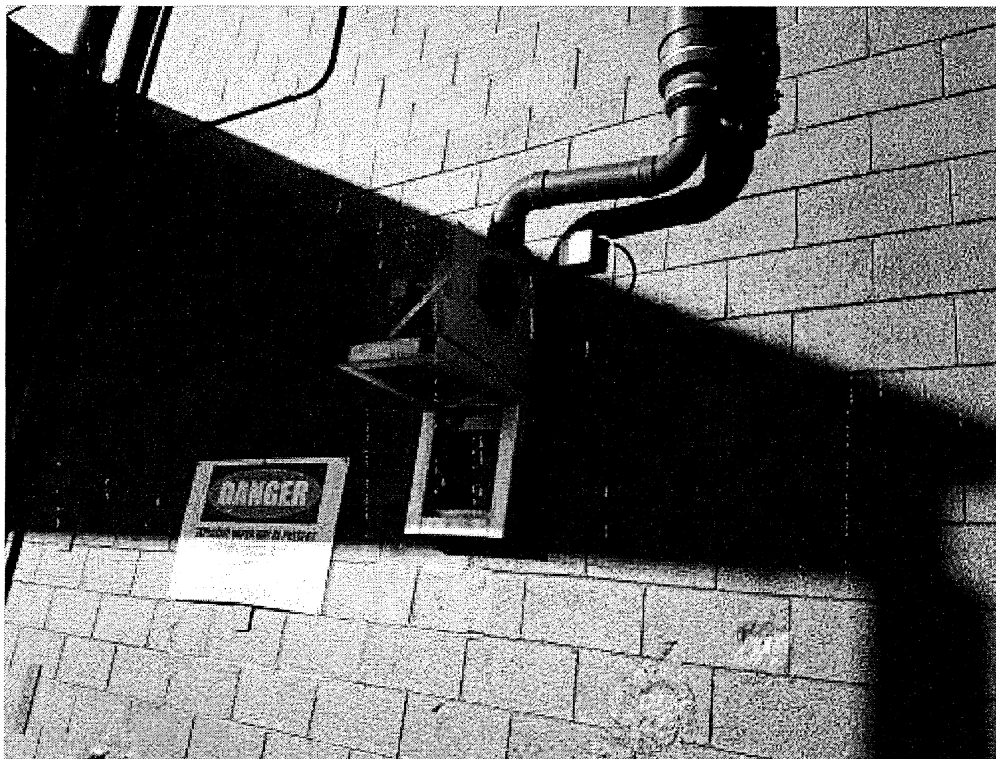


Image 5(Tank exhaust) : Neutralization tank exhaust fan

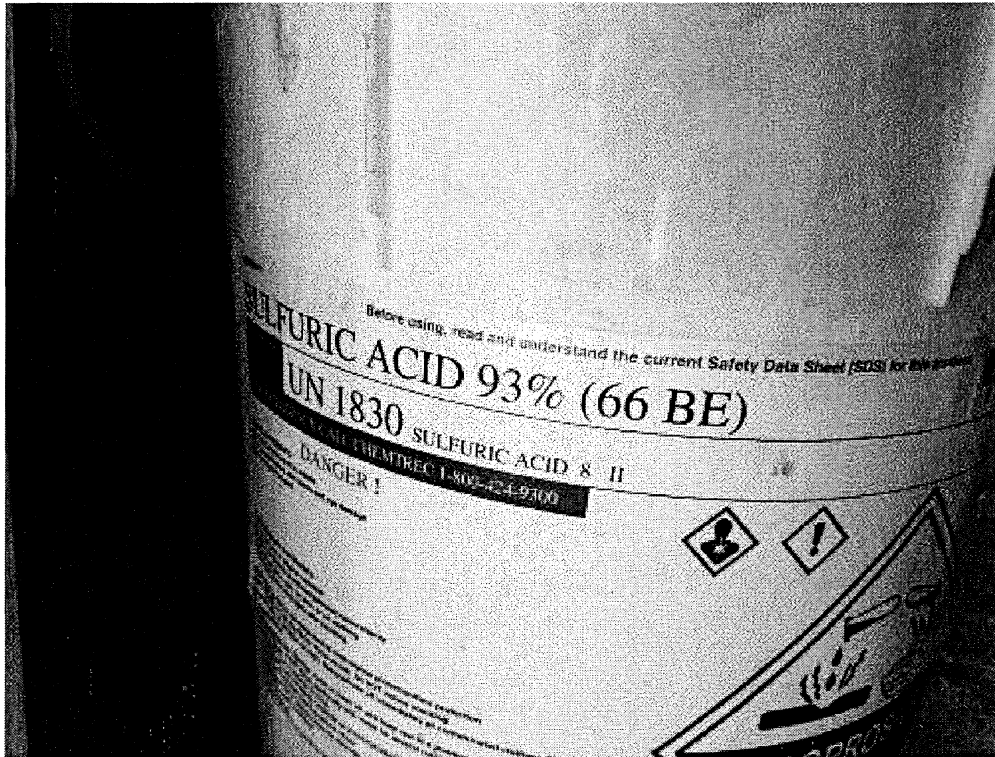


Image 6(Sulfuric acid) : Sulfuric acid drum associated with neutralization tank

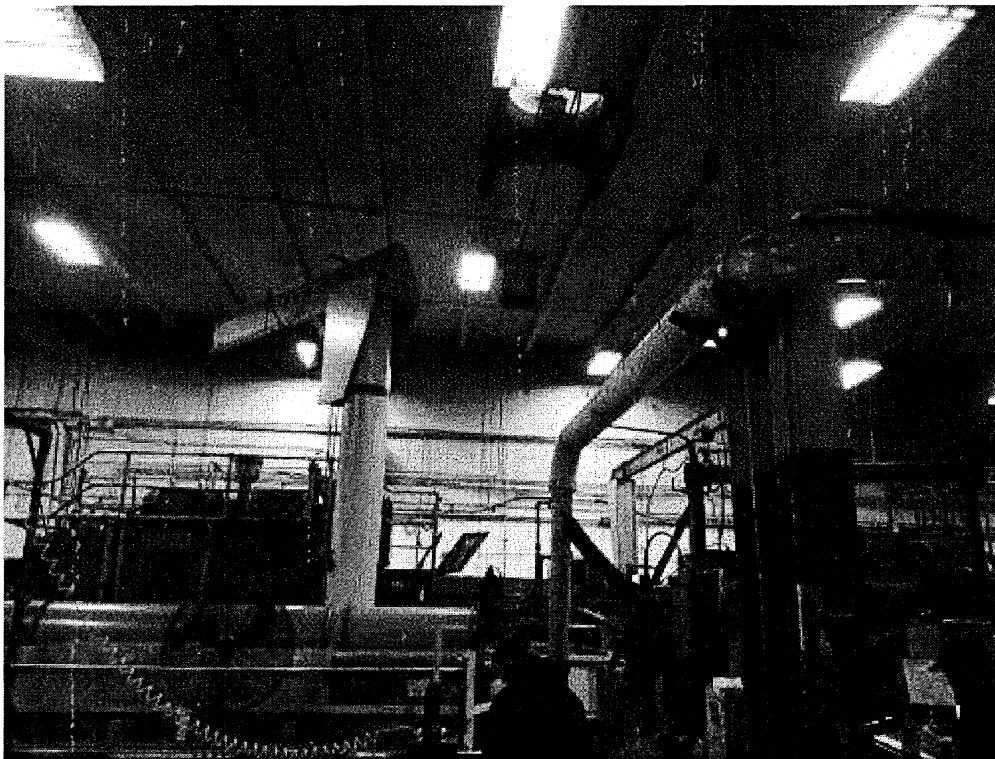


Image 7(Exhaust above furnace) : Roof exhaust above first furnace.

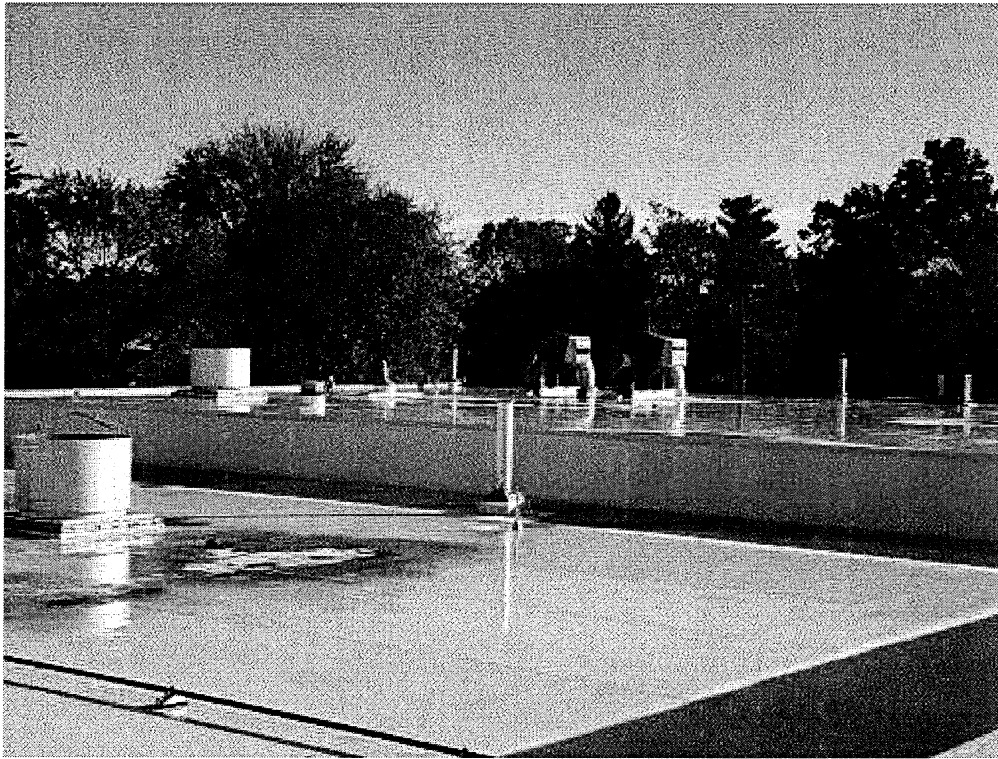


Image 8(Roof) : Roof looking towards stacks above 2nd furnace.

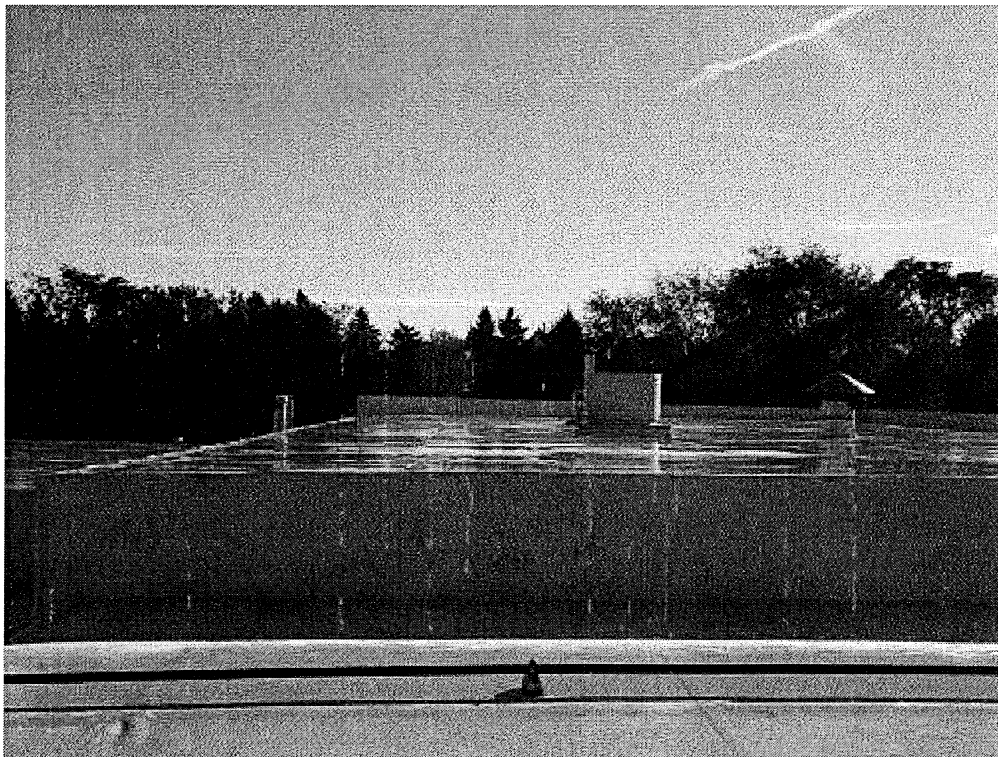


Image 9(Furnace stacks) : Stacks above first furnace

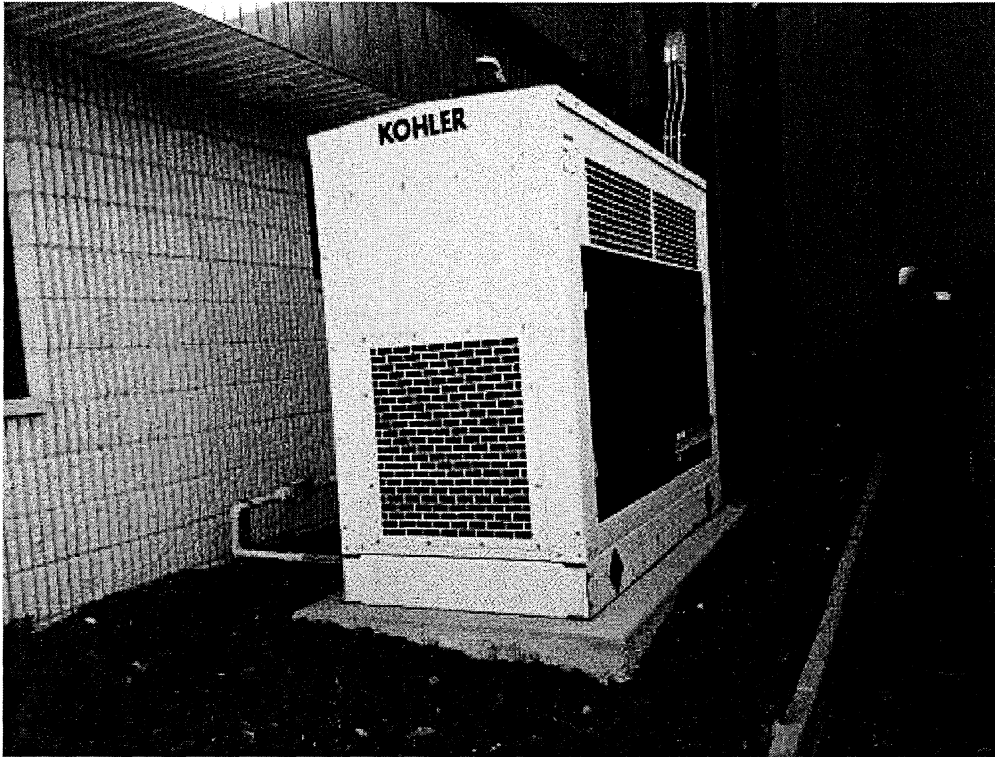


Image 10(Emergency generator) : Emergency generator



Image 11(Aerial photo) : Aerial photo

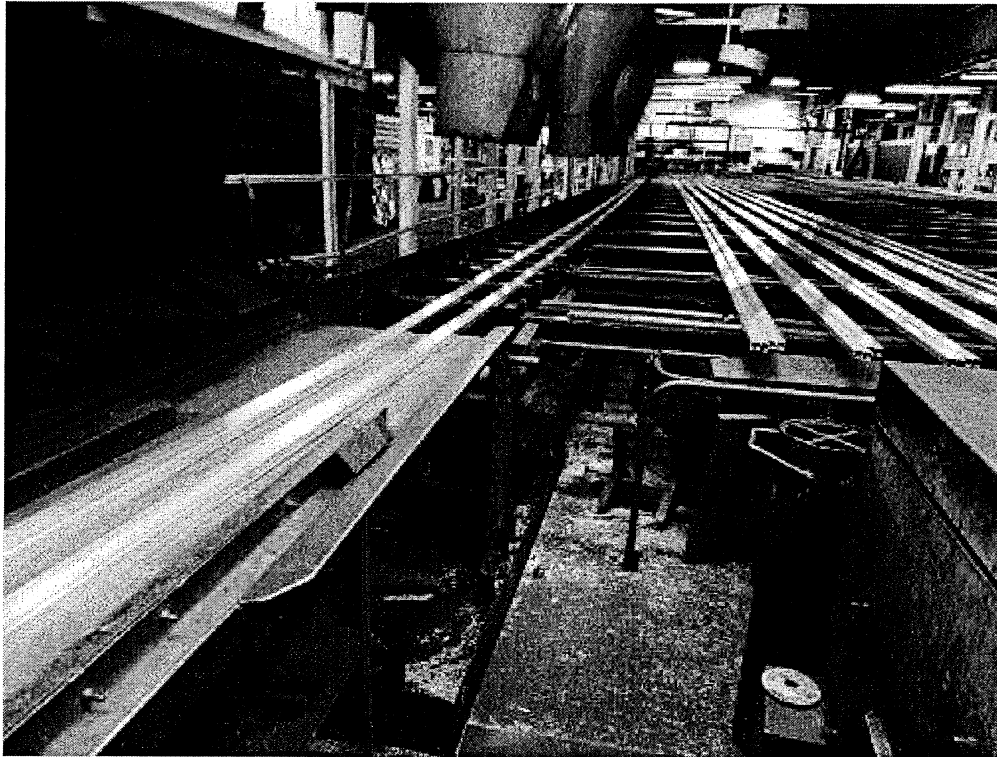


Image 12(Furnace exit) : Furnace #1 exit showing the newly formed extruded product.

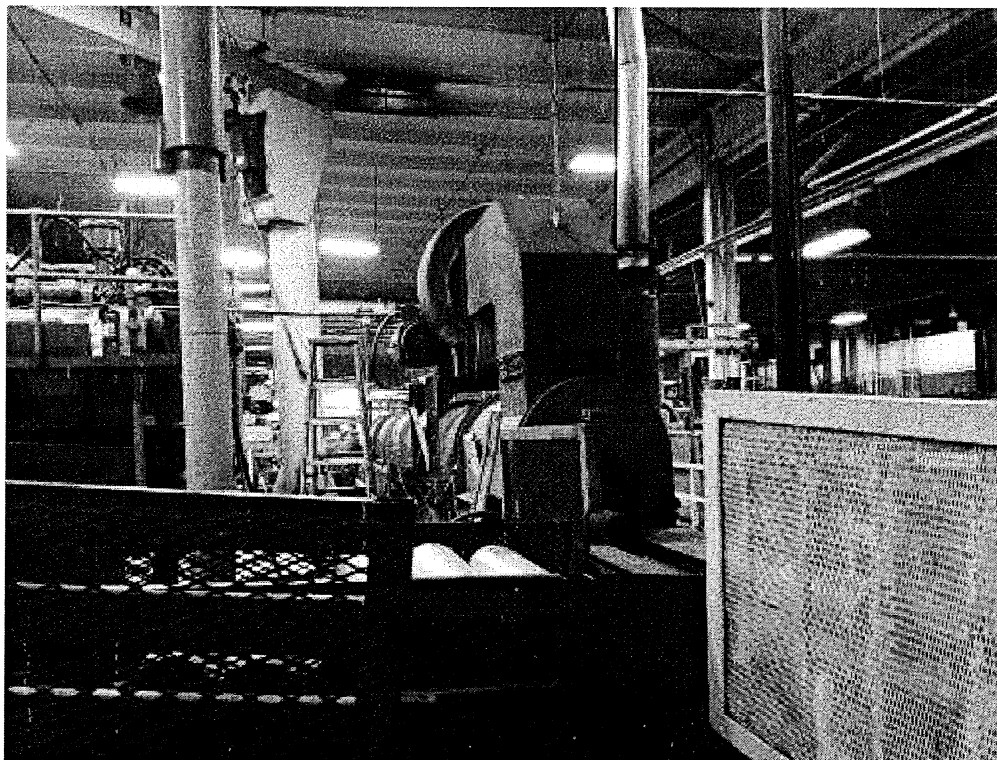


Image 13(Entrance furnace) : Entrance of the furnace #1 showing the billets being loaded into the furnace.

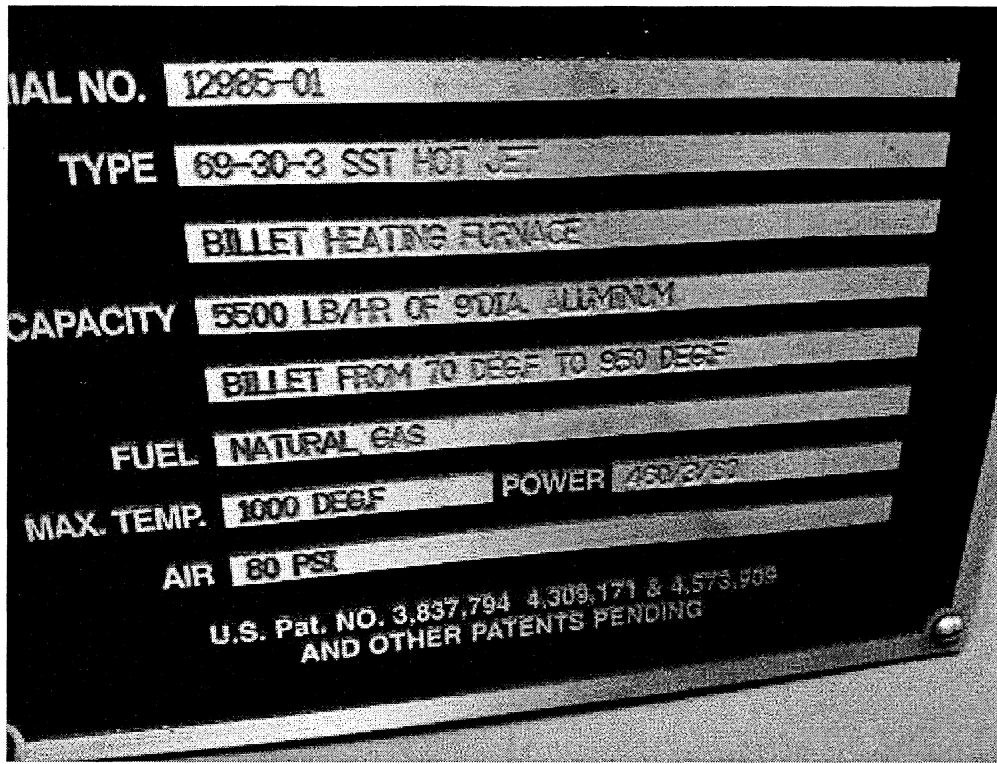


Image 14(Furnace name plate) : Furnace name plate

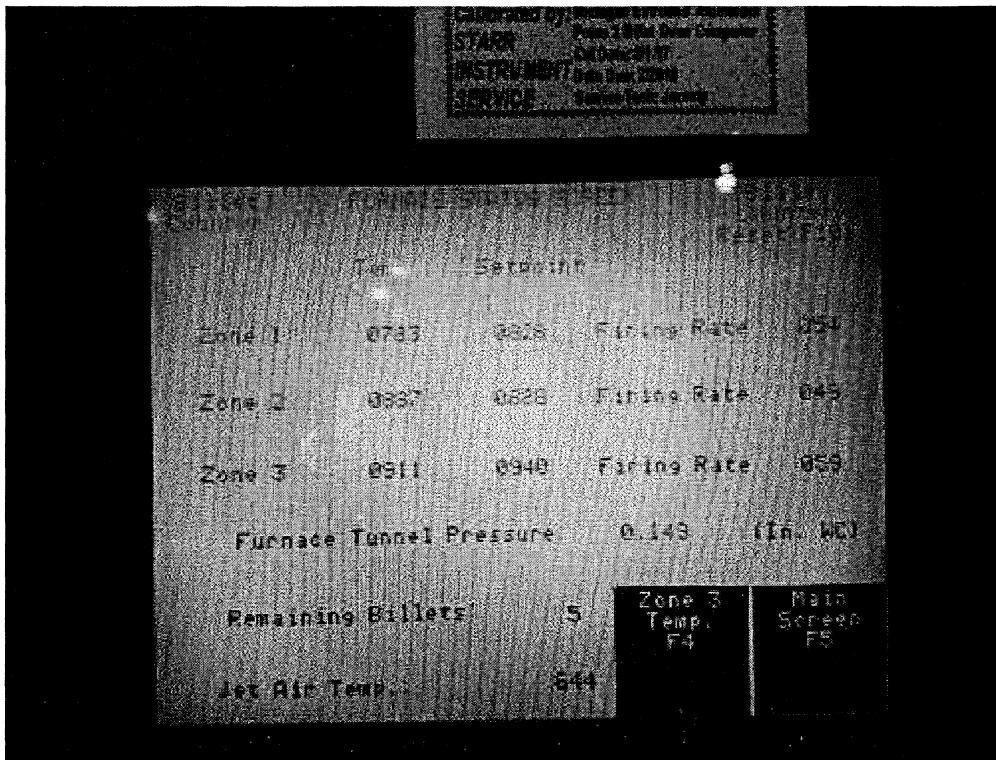


Image 15(Furnance temps) : Furnance temps



Image 16(Furnace stack) : Furnace stack

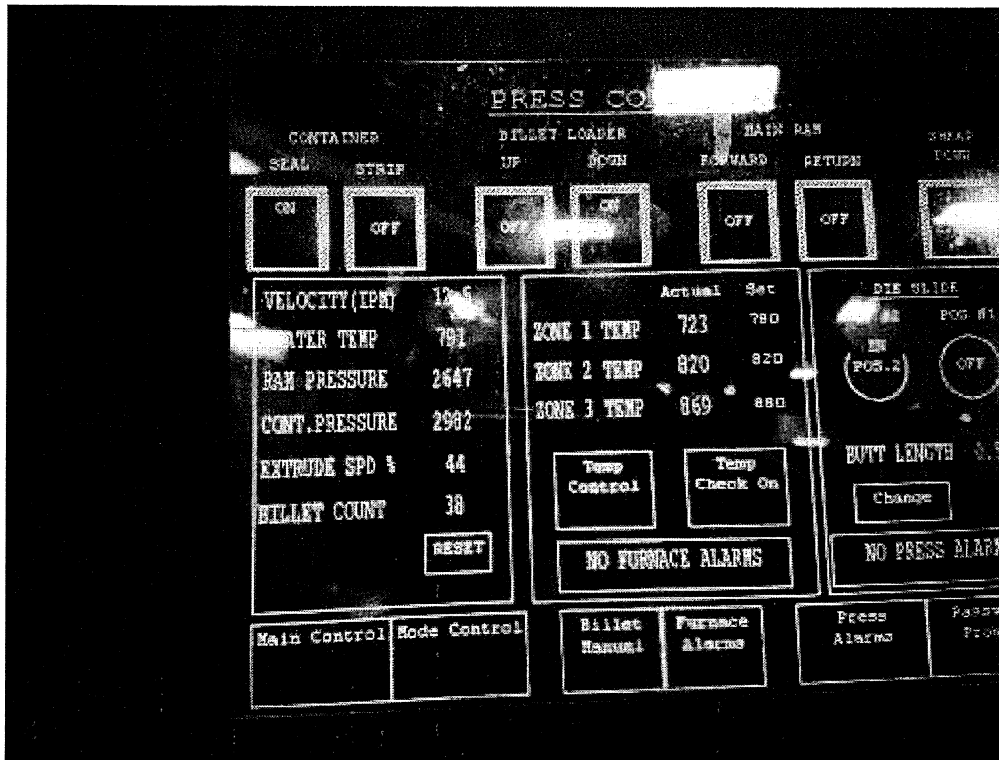


Image 17(Furnace process) : Furnace process control

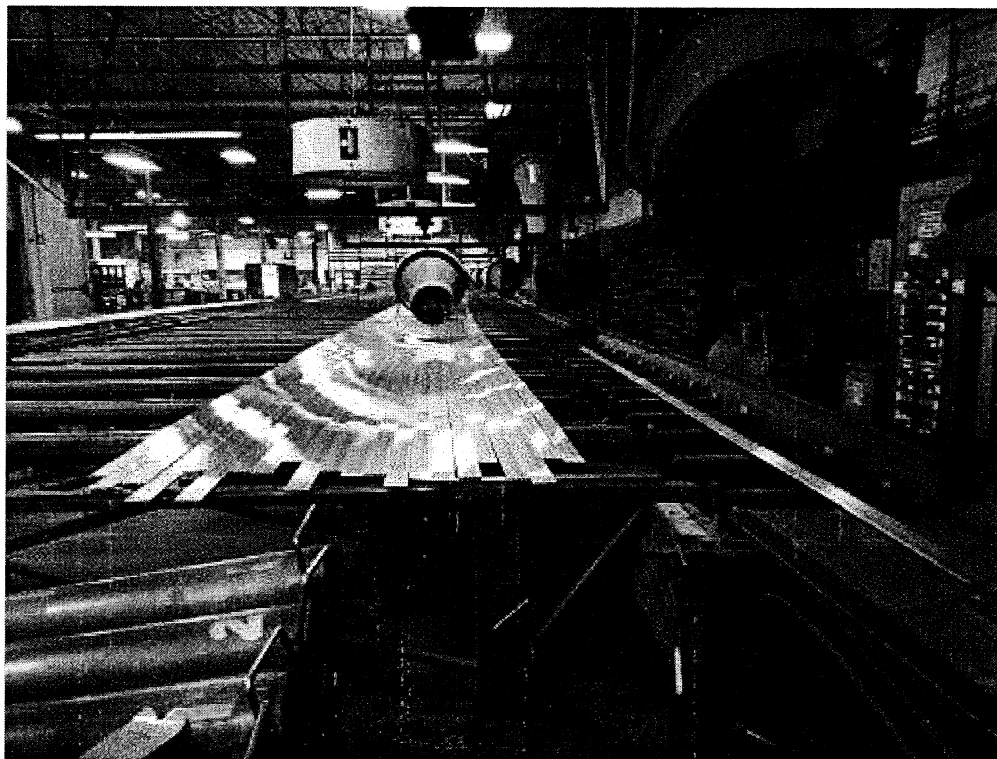


Image 18(Exit 2nd furnace) : Exit 2nd furnace



Image 19(Ceiling fan) : Ceiling fan above furnance

NAME M. Kovalchuk

DATE 10/27/17

SUPERVISOR [Signature]