

FRANT

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

N788829144

FACILITY: ALLOY RESOURCE CORPORATION		SRN / ID: N7888
LOCATION: 2281 PORT CITY BLVD, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: Wayne Perry, VP/GM		ACTIVITY DATE: 01/14/2015
STAFF: Eric Grinstern	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Compliance inspection		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

The facility is a secondary aluminum and zinc processor. The facility holds one PTI (No. 340-07C) that covers one existing 80k aluminum reverberatory furnace, one proposed 50k aluminum reverberatory furnace and one existing zinc pot furnace.

REGULATORY ANALYSIS

The facility was issued PTI 340-07C on January 30, 2015, replacing PTI 340-07B, which was issued on January 10, 2013. PTI No. 340-07C deleted mention of the rotary furnace that the facility installed but plans to remove. The permit also modified the grouping of the furnaces for testing/compliance purposes, and added a 50k aluminum furnaces that is onsite but not hooked up to gas or electric yet. The permit also addresses an existing 27,133 lb. capacity zinc pot furnace that has not recently been operated, and was subsequently removed from the facility.

The 80k aluminum furnace is permitted as being subject to 40 CFR Part 63 Subpart RRR, Secondary Aluminum Production NESHAP, and the zinc furnace is potentially subject to Subpart TTTTTT. The permit does not address Subpart RRR requirements for the proposed 50k aluminum furnace because the application and facility stated that only clean charge will be put in the furnace. If the facility were to charge the furnace with unclean material it would become subject to Subpart RRR.

When the facility revised their permit to install, issued on January 10, 2013, they planned to install and operate a rotary furnace that would supply molten aluminum to the 80k reverberatory furnace for holding/refining. The permit required compliance testing within 90 days of startup, for all of the furnaces since they were controlled by the same baghouse. The facility informed AQD that they were having difficulty getting the rotary furnace into operation and requested an extension since they were only operating the 80k reverberatory furnace, into which they were only charging clean material. The extension request was granted since the rotary was not in operation and a compliance test at that time would not be representative of permitted operations. The testing deadline was extended until 90 days after the startup of the rotary furnace or within 90 days of the start of operation of the 80k reverberatory furnace in a manner subjecting it to the requirements of Subpart RRR.

During an onsite visit on September 5, 2013, staff met with Mr. Wayne Perry, VP/GM. Mr. Perry stated that due to mechanical failure the rotary had not been operated. Mr. Perry stated that they were operating the 80k reverberatory furnace. Mr. Perry stated that they were charging the furnace with purchased turnings that had been processed through a centrifuge. Centrifuged turnings are considered clean charge which would not trigger Subpart RRR. Mr. Perry also stated at the time that they were not using the chlorine or ammonia systems since they were running clean charge.

The facility scheduled compliance testing to occur on December 17 and 18, 2014, however due to the failure of the baghouse fan drive the system was shut down. Testing was rescheduled and took place on January 14-16, 2015. Prior to the testing, AQD was informed by the company that they did not plan to operate the rotary furnace and would not be conducting testing on the unit. The company stated that they plan to remove the rotary furnace.

COMPLIANCE EVALUATION

Facility compliance was evaluated during the compliance testing conducted on January 14-16, 2015 and from records received on January 30, 2015 and February 9, 2015. During the

onsite inspection, staff met with Wayne Perry, VP/GM, Charles Plichta, Quality/EHS Manager, ARC, and Jerry Garman, MPH, EHS Coordinator, Port City Group.

Below is an evaluation of the compliance requirements for each regulated emission unit, based upon Permit to Install No. 340-07B/No. 340-07C and applicable NESHAP requirements.

EUZINC30

The zinc furnace has not operated and has been removed.

EUUTILITIES

Restricts natural gas-fired space heaters to not exceed 10 MMBtu/hour.

Staff did not observe any natural gas space heaters that appeared to exceed 10 MMBtu/hour.

FGFURANCES

Emission/Material Limits

Emissions of PM, PM10, PM 2.5, HCL, HF, Cl, and D/F are restricted under FGFURANCES. Compliance with the emissions limits is demonstrated through compliance testing, throughput limitations and baghouse monitoring.

The facility conducted compliance testing on January 14-16, 2015. Results received on March 31, 2015 demonstrated compliance with the emission limits.

Material throughput for aluminum melt, chlorine gas flux, and ammonia is limited within the permit. The facility is required to maintain daily records to demonstrate compliance with the throughput limits. Review of facility records showed compliance with the permit established throughput limits for chlorine gas. The facility has reported that they have found it unnecessary to use ammonia.

Review of the aluminum melt records showed exceedances of the 12,000 pound per hour limit on three days (August 8, 2014, October 23, 2014, November 1, 2014)

Testing/Sampling

The permit requires testing to demonstrate compliance with the state established emission limits within 90 days of permit issuance. As previously noted, the facility requested and was granted an extension on October 15, 2013, allowing them 90 days after startup of rotary furnace or within 90 days of operating the existing reverberatory furnace in a manner subjecting it to Subpart RRR.

Review of material charge records showed that the facility was melting non-clean charge material as early as September 2013, if not before. Upon charging non-clean material the furnace began operation as a Group 1 furnace under Subpart RRR. Considering September 2013 as the start of the furnace being operated as a Group 1 furnace, compliance testing should have been conducted in December 2013. The facility conducted testing on January 14-16, 2015.

Monitoring/Recordkeeping

The facility is required to maintain daily records of the following:

Hours of operation
Hourly melt/throughput rate
Aluminum charge rate

Types of material charged
Flux charge rates
Chlorine injection rate

The facility provided requested copies of the above records.

Process/Operational Restrictions/Design Parameters/Records

Requires the facility to operate under a current SSM Plan, installation and proper operation of a lime injected baghouse, a device to monitor the ammonia injection system, and a device to monitor and record the baghouse pressure drop.

The facility submitted a revised SSM Plan on March 15, 2013. The facility has installed monitoring and recording devices.

FGMACT-RRR

Emission/Material Limits

Subpart RRR limits Dioxin/Furan emissions. Compliance is based upon stack testing that was performed on January 14-16, 2015.

Due to the facility operating the furnace in a manner subjecting it to the requirements of Subpart RRR, compliance testing should have been conducted in December 2013.

Process/Operational Restrictions/Design Parameters/Records

Subpart RRR requires capture and collection systems meet specified standards. When the system was originally installed, the facility provided documentation of compliance with proper capture and collection standards. The facility is required to inspect the capture/collections and closed vent system at least once each calendar year in accordance with 40 CFR 63.1506(c). The facility has not conducted the required inspection.

The facility has 90 days of the initial performance test to submit an OM&M plan. This deadline has not yet passed. It is expected that the facility will submit an updated plan.

FGFACILITY

FGFACILITY establishes opt-out limits for HAPs and requires records documenting compliance with the emission limits.

The facility records show compliance with the HAP limits.

Summary

As noted earlier in this report, facility records of materials charged to the 80k aluminum furnace document that materials were charged that resulted in the furnace being subject to Subpart RRR as early as September 2013. Additionally, the testing extension that was granted October 15, 2013, was essentially nullified upon issuance by the fact the facility had already started charging non-clean material.

Subpart RRR requires the establishment of the following parameters at the time of compliance testing:

Bag leak detection system settings
Lime injection rate
Baghouse inlet temperature

Maximum flux injection rates

By failing to conduct testing within 90 days of the furnace becoming subject to Subpart RRR, the facility did not establish the above parameters in a timely manner.

Below is a summary of requirements for which the deadline was missed or the facility failed to comply with due to becoming subject to Subpart RRR in September 2013.

FGFURNACES

- Failure to conduct testing within 90 days of becoming subject to Subpart RRR, per the requirements of the approved test extension request, to demonstrate compliance with emission limits for PM, PM10, PM2.5, HCL, HF, CL, and Dioxin/Furan.
- Failure to verify the required lime injection rate within 90 days of initial startup

FGMACT-RRR

- Failure to conduct testing within 90 days after startup as a Group 1 furnace to demonstrate compliance with emission limits for Dioxin/Furan (D/F).
- Failure to inspect the capture/collections and closed vent system at least once each calendar year in accordance with 40 CFR 63.1506(c).
- Failure to submit a semi-annual certification report for the time period of July 2013 – December 2013

Additionally, for FGFURNACES, the facility exceeded the 12,000 pound per hour charge limit on three days (August 8, 2014, October 23, 2014, and November 1, 2014)

The facility will be issued a violation notice for the above listed violations.

NAME



DATE

4/14/15

SUPERVISOR

