

NARRATIVE

TO: Jeng-Hon Su

FROM: A.Q. Siddiqui

DATE: March 27, 2025

Facility Name: **HL Mando America Corporation**
AIRS No.: 199-00028
Location: Hogansville, GA (Meriwether County)
Application #: 29631
Date of Application: March 11, 2025

Background Information

HL Mando America Corporation (hereinafter “facility”) is an existing facility that includes a ductile iron foundry and a machining plant separated by Meriwether Park Drive in Hogansville, Georgia (Meriwether County) which is an attainment area for all criteria pollutants. The foundry is located at 1136 Meriwether Park Drive and the machining plant is located at 955 Meriwether Park Drive. The facility manufactures various brake parts for vehicles including brake calipers, anchors, and housings for anti-lock brake systems.

The facility produces automobile brake parts through a green-sand molding process. Iron is melted in the furnaces to be poured into molds to create the parts. Sand is mixed with a liquid resin and blown into a vented box. A curing gas is then blown into the box to cure the resin and set the mold. Molten iron is poured into the mold. Once the casting is cooled and solidified, the sand is shaken out and removed from the casting. The part is then subject to machining to remove excess material and finish the part.

Purpose of Application

The application (assigned No. 29631) was received on March 12, 2025. The purpose of the application is to change the name of the facility and update the existing permit to include a previous off-permit change for a shot-blast unit and the removal of a baghouse. No public advisory was issued because change in PTE does not exceed the cumulative modification threshold.

The facility was previously named “Mando Georgia Casting Facility” prior to this amendment.

Updated Equipment List

The updates in equipment include the addition of shot blast #4 (ID No.4145) and the removal of baghouse DC03. The shot blast #4 unit is controlled by existing baghouse DC05. Mold cooling is no longer routed to any baghouse due to lower-than-expected PM emissions. Mold shakeout is now routed to baghouse DC04.

Emission Units			Associated Control Devices	
Source Code	Description	Installation Date	Source Code	Description
1000	Charge Handling	2013	--	--
1120	Melting Furnace #1	2013	DC01	Baghouse
1130	Melting Furnace #2	2013	DC01	Baghouse
1160	Melting Furnace #3	2013	DC01	Baghouse
1170	Melting Furnace #4	2013	DC01	Baghouse
1410	Iron Pouring	2013	DC01	Baghouse
1420	Magnesium Treatment	2013	DC01	Baghouse
2130	Mold Cooling	2013	RTO3	RTO
2140	Mold Shakeout	2013	DC04 RTO3	Baghouse RTO
2150	Casting Cooling Drum	2013	DC04	Baghouse
3420	Core Machine #1	2013	AS06	Acid Scrubber
3430	Core Machine #2	2013	AS06	Acid Scrubber
3440	Core Machine #3	2013	AS06	Acid Scrubber
4110	First Shot Blast	2013	DC05	Baghouse
4120	Shot Blast #1	2013	DC05	Baghouse
4130	Shot Blast #2	2013	DC05	Baghouse
4140	Shot Blast #3	2013	DC05	Baghouse
4145	Shot Blast #4	2023*	DC05	Baghouse
4150	Press	2013	--	--
4160	Press	2013	--	--
4170	Press	2013	--	--
4180	Press	2013	--	--
5110	Sand Preparation	2013	DC02	Baghouse
CSH1	Core Sand Handling	2013	DC07	Bin Vent
EFP1	Machining Plant Emergency Fire Pump	2013	--	--
EFP2	Emergency Fire Pump	2013	--	--
EGN1	Emergency Generator	2013	--	--
GR1	Hand Grinders	2013	DC05	Baghouse

*proposed within current application

Emissions Summary

Both potential and actual emissions are calculated as post-control emissions. Potential emissions are based on the maximum production input rate of 55000 tons of iron per year and 8760 hours per year. The estimation for actual emissions is based on the 45896 tons of iron poured in 2024, resulting in actual emissions being an estimated 83% of potential emissions ($45896/55000 = 83\%$).

The emissions change is largely due to adjustments to the calculation and the inclusion of previously omitted miscellaneous potential emissions, as explained below (quoted from application):

Emissions estimates are largely unchanged for all emission sources except mold cooling and shakeout. Emission rates from mold shakeout have been adjusted to reflect the recent emission stack testing that shows a VOC destruction efficiency of 89.57% from RTO3. In addition, PM emissions from shakeout and the casting cooling drum that were allocated to DC03 are now allocated to DC04.

VOC emissions estimates have been increased as a conservative measure. In this application, the results of the recent emissions test have been added to the pouring and cooling emission factors originally used. PM emissions estimates from pouring and cooling have been adjusted to account for the removal of baghouse DC03.

Other changes to the emissions calculations that are unrelated to the proposed project were increases in estimates of products of combustion from miscellaneous natural gas usage and RTO (to reflect 8760 hours per year), and to correct NOx emission estimates from miscellaneous natural gas usage (the initial application did not include this value).

Uncontrolled PM, CO, VOC, and HAP emissions from the facility are above the major source thresholds; the permit enforces air pollution control devices and incorporates facility-wide emission limits to allow the facility to operate as a synthetic minor source.

Facility-Wide Emissions (in tons per year)

Pollutant	Potential Emissions			Actual Emissions		
	Before Mod.	After Mod.	Emissions Change	Before Mod.	After Mod.	Emissions Change
PM/PM ₁₀ /PM _{2.5}	43.77/20.09/ 18.78	46.71/23.31/ 22.01	+2.95/+3.22/ +3.23	36.52/16.76/ 15.67	38.98/19.45/ 18.36	+2.46/+2.69/ +2.69
NOx	6.12	13.02	+6.90	5.11	10.86	+5.75
SO ₂	0.85	0.88	+0.03	0.71	0.73	+0.02
CO	43.06	47.16	+4.10	35.94	39.35	+3.41
VOC	27.04	34.67	+7.63	22.56	28.93	+6.37
Max. Individual HAP	0.55	0.98	+0.43	0.46	0.82	+0.36
Total HAP	1.63	2.93	+1.30	1.36	2.44	+1.08
Total GHG (if applicable)						

*All emissions are controlled emissions. "Before Mod." emissions can be sourced from the previous memo.

Regulatory Applicability

The facility will continue to be subject to Georgia Rule (b) – Visible Emissions and Georgia Rule (e) – Particulate Emission from Manufacturing Process.

The facility will continue to be subject to 40 CFR 63 Subpart ZZZZZ - “National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.” The modifications (cooling and shakeout) and addition (shot blast #4) are not subject to this part. [40 CFR 63 Subpart ZZZZZ]

Permit Conditions

Condition 2.6a is updated to include newer CFR language (amended in 2020)

Condition 4.1 is modified to remove reference to baghouse DC03

Condition 4.3 is modified to reflect that mold shakeout emissions are controlled by baghouse DC04

Condition 5.3a is updated to fix a typo (0.00044 → 0.0044 grain/acf)

Condition 7.12c is updated to fix a typo (correction → corrective)

Condition 7.18 is deleted (initial permit application serves as initial classification of large foundry)

Condition 7.19 is deleted (initial start-up notification received 03/31/2014, start-up date 03/24/2014)

Toxic Impact Assessment

It was determined that a new TIA is not needed because the RTO destruction efficiency used in the calculations in the initial application (90%) is comparable to the recently tested efficiency used for the current application (89.57%). Emissions with HAPs and VOC will continue to pass through the RTO control device. Changes in emissions are mainly due to more conservative emission factors used in this application.

Summary & Recommendations

HL Mando America Corporation operates a ductile iron foundry and a machining facility which are permitted as a synthetic minor source. The Stationary Source Compliance Program is responsible for the facility’s compliance and the receipt of monitoring and compliance reports. I recommend the issuance of Permit Amendment No. 3321-199-0028-S-01-1 for this facility. This amendment incorporates the removal of baghouse DC03, the addition of a shot blast unit, and the facility name change. This amendment did not require public advisory because the additional PTE does not exceed the associated thresholds specified in GA Rule 391-3-1-.03(6)(i)3.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//