P0871
MANILA

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

P087145310

FACILITY: Ebonex Corporaton		**SRN / ID:** P0871
LOCATION: 2380 South Wabash, MELVINDALE		**DISTRICT:** Detroit
CITY: MELVINDALE		**COUNTY:** WAYNE
CONTACT: Cam Bowman , Quality and Regulatory Compliance Manager		**ACTIVITY DATE:** 07/25/2018
STAFF: Jonathan Lamb	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** Minor
SUBJECT: Targeted inspection, FY 2018		
RESOLVED COMPLAINTS:		

INSPECTED BY: Jonathan Lamb, MDEQ-AQD
PERSONNEL PRESENT: Cam Bowman, Quality and Regulatory Compliance Manager; Shelly Toenniges, President; James Stone, Plant Manager
FACILITY PHONE NUMBER: (313)388-0060
FACILITY WEBSITE: www.ebonex.com

FACILITY BACKGROUND:

Ebonex produces dry black pigment/colorant made from ground charcoaled cow bones which is used in the plastics and coating industries. The product is sold under trade names such as "Bone Black" and "Cosmic Black". The facility has operated in the same 64,000 sq. foot building located in a mixed residential/light industrial area of Melvindale since 1967; facility management was unsure of actual date manufacturing began but the letter of incorporation is dated October 1967. Hours of operation are Monday through Friday, 7:30 AM to 3:00 PM, and the facility has seven employees. Ebonex is the parent company of Keystone Universal (18400 Rialto, Melvindale); the main office for both facilities is located at Keystone Universal.

COMPLAINT/COMPLIANCE HISTORY:

There were no records or permits found for this facility in AQD's facility files or database.

PROCESS DESCRIPTION AND INSPECTION NARRATIVE:

Ebonex produces dry powdered black pigments from ground charcoaled cow bones. The charcoaling is not performed on site; Ebonex receives charcoaled bone material which is produced at facilities in Brazil, Canada, and the Netherlands. During the process of charcoaling, cow bones are put into a 700°F kiln until they are sufficiently charred and are then pulverized to a granular material. Ebonex receives this ground, charcoaled raw material in large boxes.

Processing begins in the "mill room". The raw material is introduced into one end of horizontal ball mill, which rotates while steel composite balls crush the raw material down to a powder. This powder is pneumatically conveyed to a collection hopper. Material is then emptied from the collection hopper into metal "fill boxes" and moved via forklifts to stacked shelves located in the staging area referred to as "the hill" (due to the slightly higher elevation of the floor in this area). There is no external exhaust associated with the ball mill or collection hopper; all emissions are exhausted within the general in-plant environment.

There is some variability in the shade of the material in each fill box, due to the slight variations in the raw material which occurs during charcoaling. Because of this, materials in the fill boxes need to be blended to meet the pigment specifications of the final product. This is performed in the area of the building known as the "final product room". Fork lifts move each fill box from the shelving onto the floor, where it is picked up by an overhead crane and dumped into the blender where it is mixed to the desired shade and screened to approximately size 325 mesh. This blending/screening process is controlled by a cyclone dust collector, which vents to a stack on the roof; the stack appears to exhaust within a small vented structure on the roof, so the stack itself is not visible outside the building. Material in the dust collector is collected in barrels and either reused or disposed of, depending on the quality of the material. The blending/screening operation is not permitted and does not appear to meet the R.285(2)(l)(vi)(C) because the cyclone dust collector is not a fabric filter dust collector.

The screened material from the blending/screening operation is loaded into 40- and 50-pound bags via an adjacent bagging machine. The bags are then stacked on pallets and stored in the front of the building until shipment. The facility also performs distribution of pre-bagged bone ash and bone char received from its raw

material suppliers; this material is received and shipped off "as is" with no further processing or re-bagging performed on site.

Based on the Material Safety Data Sheets provided on the facility's website, "Bone Black" and "Cosmic Black" are not considered to be carcinogenic.

APPLICABLE RULES/ PERMIT CONDITIONS:

There are no permits associated with this facility.

FINAL COMPLIANCE DETERMINATION:

At the time of inspection, Ebonex appears to be in noncompliance with Rule 201 for failure to obtain a permit for the blending/screening unit and ball mill.

NAME _____ DATE 12-26-18 SUPERVISOR JK