

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N773828575

FACILITY: J.G. KERN ENTERPRISES, INC.		SRN / ID: N7738
LOCATION: 44044 MERRILL ST, STERLING HTS		DISTRICT: Southeast Michigan
CITY: STERLING HTS		COUNTY: MACOMB
CONTACT: Lester Castillo , Plant Manager		ACTIVITY DATE: 01/21/2015
STAFF: Rem Pinga	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced Level 2 Self-initiated Inspection		
RESOLVED COMPLAINTS:		

On 1/21/2015, I conducted a level 2 unannounced self-initiated inspection at J. G. Kern Enterprises, Inc. located at 44044 Merrill Road, Sterling Heights, Michigan 48314. The purpose of the inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Administrative Rules, and to verify compliance resolution with AQD Rule 201 Violation Notice that was sent to the company last March 24, 2014.

Prior to the inspection, I conducted odor observations downwind and upwind from the facility due to past history of odor complaints allegedly coming from the facility. I conducted odor observations starting from the corner of Merrill Road and 19 1/2 Mile Road and going east towards Phoenix Drive. I continued to conduct odor observations going north on Phoenix Drive (east of the facility) from 19 1/2 Mile Road towards Arrow Drive and proceeded west along Arrow Drive towards Merrill Road. I did not observe any odors. I drove south on Merrill Road, while conducting odor observations, and proceeded towards 19 1/2 Mile Road but entered the parking lot of J. G. Kerns on the eastside and prior to reaching 19 1/2 Mile Road. I did not observe any odors at any points upwind and downwind from the facility.

At the facility, I met with Mr. Lester Castillo, Plant Manager. Prior to the walk through inspection, I showed my ID Badge, per protocol, and stated the purpose of my visit. I gave a copy of the pamphlet "Environmental Inspections: Rights and Responsibilities" to Mr. Castillo who also accompanied me during the facility walk through.

As in the past, the facility manufactures mostly internal drive train parts for the automotive manufacturing industry such as axle flanges, transmission flanges, and miscellaneous slip yokes including cylinder blocks, engine covers, and pump housings. The manufacturing processes comprise mostly of machining equipment such as CNC lathes and broaches for cutting, grinding, turning, machining, sanding, and assembly/packaging of final product for customers. In addition, the facility operates 5 small electric heat treat processes with open quenching (Violation Notice was sent 3/24/2014 for noncompliance of AQD Rule 201 for the original 2 quenching processes - installing the equipment without first obtaining a permit to install). The facility has sent a response that the quenching process does

not use oil and meets the AQD Rule 290 criteria to be exempt from permit to install requirements.

Based on previous year equipment inventory, the facility has 32 modern CNC machines, 7 manual CNC turning machines, 23 milling machines, 8 detergent parts washers, and one Crystal Clean small parts washer. I also observed surface grinding equipment, hydraulic drilling equipment, electric drilling equipment, and other equipment including a tool room.

During the inspection, Mr. Castillo accompanied me to the different operations/processes around the facility starting from the north side (where heat treat processes are located) and moving towards the south side of the building. I did not observe any light oily/coolant odor and the "musty" odor inside the facility. Mr. Castillo mentioned that he has his staff religiously monitor the coolant for bacterial count and the oil integrity to address the odor issues and to be vigilant about oil/coolant monitoring and housekeeping such as cleaning spills ASAP to avoid bacterial growth around the equipment floor area and in the pits or storage of spent coolants. Some of the coolants were also replaced. I observed cylinder head blocks being machined in one area of the facility. The machining equipment appeared to be exempt from permit to install requirement per AQD Rule R 336.1285(l)(vi)(B). I observed a few of the detergent parts washers and the "Crystal Clean" part washer. Per Mr. Castillo, the solvent used is mineral spirit and this equipment is exempt from permit to install requirements per AQD Administrative Rule R 336.1281(h). The lid was closed with safety/operating instructions posted in the lid.

After the walk through inspection, I discussed with Mr. Castillo the status of the Violation Notice. During the post-inspection meeting, Mr. Castillo and Mr. Henry Kwiotek, Program Manager, showed me documentation to support the facility's claim for the heat treat processes potentially being subject to a permit to install (PTI) exemption under AQD Rule 290. The quenching solution was not oil based. The Safety Data Sheets showed that the speciated components of the solution were non-carcinogenic and the ITSL values were greater than 2.0 ug/m³. The submitted quenching solution recordkeeping showed the annual emissions were much less than the 1,000 lb./month limit for AQD rule 290 exemption from PTI requirements. I informed Mr. Kwiotek that this recordkeeping must be kept on a monthly basis to meet the exemption requirements.

As a result of my inspection, I found that the heat treat processes with solvent quenching to be in compliance with AQD Rule 201 based on AQD Rule 290 exemption and I will be recommending to resolve the Violation Notice. I did not find any other noncompliance issues during the inspection.

NAME Be-11 G.

DATE 2/20/2015

SUPERVISOR CJE