



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Freudenberg-NOK General Partnership, Indiana, Shelbyville

FROM: Carlo Demma, Physical Scientist
AECAB (MN/OH)

THRU: Brian Dickens, Section Supervisor
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Freudenberg-NOK Sealing Technologies

Facility Location: 1700 S Miller Ave, Shelbyville, IN 46176

Date of Inspection: June 1, 2022

EPA Inspector(s):

1. Carlo Demma, Physical Scientist (Air)
2. Karyn Defranco, Environmental Engineer

Other Attendees:

1. Tom Robertson, Health Safety and Environmental Quality Manager, Freudenberg-NOK
2. Kevin Templeton, Application Center Manager (Rubber Mixing), Freudenberg-NOK
3. Ian McDowell, Maintenance Team Lead, Freudenberg-NOK
4. Scott Flynn, Manufacturing Specialist, Freudenberg-NOK
5. Robert May, Operations Manager, Freudenberg-NOK

Contact Email Address: Tom Robertson, Thomas.Robertson@fnst.com

Purpose of Inspection: To investigate compliance with VOC emission limits under PSD (Indiana SIP, 326 IAC 2-2) and PM limits under Freudenberg's Permit No. 145-44179-00027.

Facility Type: Stationary rubber parts manufacturing plant.

Regulations Central to Inspection: The Indiana State Implementation Plan (SIP).
Freudenberg-NOK's Permit No. 145-44179-00027. Title V Major Source Thresholds of the
CAA.

Arrival Time: 10:15 AM

Departure Time: 12:30 PM

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Small Business Resource Information Sheet not provided. Reason: not a small business.
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Robert May unless otherwise noted.

Process Description:

Freudenberg-NOK Shelbyville, IN (Freudenberg) manufacturers rubber molded products in a process where raw materials, such as polymers and vulcanizing oils are put into a mixer. Fillers are blended in to create rubber compounds. Some of the rubber strips receive an anti-tack coating in a dip bath. The rubber strip slabs are sent to the milling department where the strip slabs are transformed into various rubber product shapes. Finally, the rubber is sent to the molding department where the rubber is further treated and pressed to create the final rubber products. The products are packed, labeled, and then shipped out to its customers.

Staff Interview:

Freudenberg provides the Freudenberg-NOK facility in Morristown, IN with rubber compound material. Freudenberg recently undertook a 2-million-dollar project adding five new rubber presses to the facility. Freudenberg operates its five rubber mixers at about 100°C. Particulate from all five mixers are routed to dust collectors. Freudenberg produces roughly 98% Poly Chloroprene (Neoprene) rubber compound at this facility. Robert May made note of the fact that the Shelbyville facility does not coat metals and only uses the dip bath to apply the anti-tack coating to the rubber. Freudenberg vents all rubber press molding emissions to atmosphere at approximately 1000 cfm per press fan and is not required to have a control device according to its permit. The rubber mills are self-contained and have a particulate filtration system. All other operational equipment at the facility is uncontrolled.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

EPA personnel toured and observed the mixing and milling operation areas and rubber molding of various products. EPA examined the integrity of the collection hoods and ductwork. EPA did not witness injection molding or plastic molding because they were not running those press operations during the inspection.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Working internal emissions calculation master spreadsheets (2017 - 2022) including, but not limited to all emission factors and rolling sum rubber throughput.
- SDS sheets for the raw materials used in the mixers such as: polymers, vulcanizing agents, oils, and fillers.
- Curing compounds and recipes used at the facility including, but not limited to all metallic oxide curing, sulfur curing, and peroxide curing.
- Preventative Maintenance Plan, including filter changeouts over the past year (2021 - Present day).

DIGITAL SIGNATURES

Report Author: **CARLO DEMMA**  Digitally signed by
CARLO DEMMA
Date: 2022.07.19
08:44:24 -05'00'

Section Supervisor: **Brian Dickens**  Digitally signed by Brian
Dickens
Date: 2022.07.19 09:25:32
-05'00'