

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection**

B364462311

<b>FACILITY:</b> S.C. Johnson Home Storage LLC		<b>SRN / ID:</b> B3644
<b>LOCATION:</b> 4868 E WILDER RD, BAY CITY		<b>DISTRICT:</b> Bay City
<b>CITY:</b> BAY CITY		<b>COUNTY:</b> BAY
<b>CONTACT:</b> Jeff Freiburger , Assoc Manger, Safety, Health, Environment		<b>ACTIVITY DATE:</b> 03/03/2022
<b>STAFF:</b> Kathy Brewer	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> Verification of emission tracking for R290 units and other air permit exempt equipment		
<b>RESOLVED COMPLAINTS:</b>		

### SC Johnson Wilder Road Bay City MI facility

**Air Quality Inspection Pre-inspection virtual meeting on March 9, 2022 and onsite inspection March 10, 2022.**

The SC Johnson Bay City facility has several plastic film operations that produce plastic bags and plastic wrap. A representative diagram of the production line sequence and activities is attached. A line is used for plastic film or for plastic bags. Not all lines apply labels. Product is boxed and sealed, date coded, and stored until shipped.

Emissions from the production activities include ozone, ammonium hydroxide, and VOCs. The site added production lines in 2018 but the new production activities and the entire source emissions are still able to meet exemptions to the requirement to obtain a Permit to Install.

The facility is an Area Source for HAPs and has equipment subject to 40 CFR Part 60 Subpart Dc and Part 63 Subpart ZZZZ.

During the inspection SC Johnson staff and I viewed several production areas including bag and wrap making areas, packaging operations, a production operation control area, resin loading and storage, and Site Boilers.

On site records reviewed included calculations for monthly emissions and associated production.

At the time of the inspection the facility appeared to be in compliance with applicable air pollution control regulations.

### Emission Units and exemptions

SC Johnson provided Part 201 permit exempt equipment summary for the site

Equipment Description	Emission Unit ID	Emission generating activity & associated pollutant	Air permit exemption and Date exemption applied	Compliance method (installation date, size, emission calculations)	Federally applicable standards (40 CFR Part 60,63)
	EUBldg#-Line#	Extrusion	R336.1286(2)(a)		

Multiple plastic film processes		Treating- Ozone	R336.1290(a)(i)	Uncontrolled VOC, NH3, Ozone emissions.	
		Printing -VOC	R336.1290(a)(i)	Based on production	
		Drying- (NG Combustion)	R336.1290(a)(i)		
		Sealing - Plastic welding	R336.1286(2)(f)		
Multiple packaging ink application processes	EUBldg#-Line#P	Date Coding VOCs	R336.1290(a)(i)	Uncontrolled emissions. Based on production	
Fire pump Emergency Cummins Generator <20 MMBTU	EU1376FP1	Diesel combustion	R336.1282(2)(b)(i)	MMBTU/hr	
Emergency Volvo Generators <20 MMBTU	975 & 999 building (500 KW)	Diesel combustion	R336.1282(2)(b)(i) Install 2001	MMBTU/hr	40 CFR Part 63 Subpart ZZZZ
Site natural gas Johnston boiler <50 MMBTU	EUSiteHVACboiler1 (13.6MMBTU)	Natural gas combustion	R336.1282(2)(b)(i) Install 2008	MMBTU	40 CFR Part 60 Subpart Dc
Site natural gas Johnston boiler <50 MMBTU	EUSiteHVACboiler2 (11.7 MMBTU)	Natural gas combustion	R336.1282(2)(b)(i) Install 1978	MMBTU	

Multiple natural gas boilers all < 50 MMBTU	EUBldg#HVACboiler#	Natural gas combustion	R336.1282(2)(b)(i) Install dates between 2005 and 2019	MMBTU	
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In addition to the above, multiple raw material resin pellet storage silos exist. A railcar offloads pellets to a resin storage silo equipped with a filter that is exhausted to “fluff”/recycle area venting in-plant. Based on my site visit and information provided by SC Johnson the resin handling operations venting to the in-plant environment could be exempt from permitting because there are no emissions to atmosphere, or, as part of an exemption in Rule 286 (2)(a) “Plastic extrusion, rotocasting, and pultrusion equipment and associated plastic resins handling, storage and drying equipment.”

Packaging lines apply a hot melt adhesive that appears to meet the Rule 287(2) (i) permitting exemption for hot melt adhesive lines.

For air pollution record keeping purposes the individual bag lines are individual EUs because they each operate independently with differing process steps. The facility determines emissions based on each lines varied production activities. The facility tracks production by product ID (SKU) and uses the production volume and where applicable associated ink for type of label applied to determine emissions for each bag line. All emissions are uncontrolled.

There are multiple packaging lines. Each packaging line can also be an EU. The facility tracks emissions generated by some packaging lines that use ink to apply a multi-digit code to boxed items. Other packaging lines use a laser system for coding. A non VOC hot melt glue is used to seal boxes.

Diesel fuel analysis for the emergency and fire pump generators is not required but the invoices for diesel delivered listed the sulfur content at <15 ppm.

### Emissions

SC Johnson provided information on capacity, operating hours, installation dates and maintenance for the boilers and engines. We viewed the EUSITEHVACBOILER#1 and #2. Each boiler is equipped with an individual NG flow use meter.

SC Johnson had over twenty R290 exemption based EUs operating for the months reviewed. Emission and production information for each R290 EU was provided. Each line/EU emitted less than the R290 allowed 1000 lbs/month uncontrolled. Below is my summary for the R290 tracked EU emissions records COMBINED for the site. The records reviewed showed the following emissions:

R290 Pollutant	Aug 2020 (Lbs)	March 2021(Lbs)	Jan 2022 (Lbs)

VOC	1827.9	1162.8	1277.7
NH3	251.1	158.4	173.1
Ozone	1120.5	780	1272.3
Site wide total	2406.9	2102	2752

NAME 

DATE 03/28/2022

SUPERVISOR 