



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

DATE: MAR 22 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Royal Adhesives and Sealants, LLC

FROM: Gregory Gehrig, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Chief
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Royal Adhesives and Sealants, LLC

Facility Location: 2001 W. Washington St., South Bend, IN

Date of Inspection: March 14, 2019

EPA Inspectors:

1. Gregory Gehrig, Environmental Engineer
2. Eleanor Kane, Environmental Engineer

Other Attendees:

1. Rick Reynolds, Indiana Department of Environmental Management
2. Charles Tuskan, Plant Manager, Royal Adhesives and Sealants, LLC
3. Teresa Eland, Global Products Principle Engineer, H.B. Fuller Company

Contact Email Address: chuck.tuskan@rascp.com

Purpose of Inspection: CAA Compliance

Facility Type: Adhesives manufacturing

Regulations Central to Inspection: SIP, NSPS and MACT

Arrival Time: 0820 hrs

Departure Time: 1145 hrs

Facility Name: Royal Adhesives and Sealants, LLC
Facility Location: 2001 W. Washington St., South Bend, IN
Date of Inspection: March 14, 2019

Inspection Type:

- ☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
☒ CBI warning to facility provided

The following information was obtained verbally from facility personnel.

Company Ownership: The facility is owned by Royal Adhesives and Sealants, LLC, which is wholly owned by the H.B. Fuller Company. The facility has had the same ownership since 2017.

Process Description:

The Royal Adhesives and Sealants, LLC (Royal) facility makes adhesives. Raw materials include hexane, textile mineral spirits, toluene, epoxies and urethanes and binders. These materials are mostly hand piped to the mixers from outdoor storage tanks. Dry products and some liquids are dropped into mixers from a deck above the mixers. Raw materials are mixed in 23 fixed mixers, called churns, and two mixers with portable tanks. Each mixer is vented to a dedicated primary condenser. All primary condensers are then routed to a single secondary condenser, which is then vented to atmosphere. A baghouse controls particulate emissions from dry product additions to the mixers. Particulate emissions are collected at several locations by a series of dust collectors and baghouses.

Products are poured into drums and pails, labeled, and warehoused prior to shipping out. Monitors near the floor detect volatile organic compounds (VOCs) for safety purposes.

The facility is subject to NESHAP Subpart HHHHH, the Miscellaneous Coatings MACT (MCM). Approximately 1 year ago, the facility began a leak detection and repair (LDAR) program.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations: EPA also utilized a FLIR camera (MOV files) and regular camera (IMG files) to observe process operations and collect images.

At the time of inspection, the facility was operating normally. Four VOC leaks were observed with the FLIR camera from:

- A small churn (churn 4) on the deck.

Date of Inspection: March 14, 2019

- The primary condenser for churn 22.
- The primary condenser for churn 54.
- The pressure relief valve (PRV) atop the outdoor hexane storage tank.

The pressure differential at DC-2 was zero, and had been recorded as zero for several days. Similarly, for DC-3, several days had pressure differential readings at zero. DC-1 was noted as being "Not in Service."

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

Facility layout (taken).

Process overview presentation (taken).

CLOSING CONFERENCE

Requested documents (to be provided via email):

- Initial and most recent semiannual LDAR reports
- 2019 baghouse pressure drop and maintenance readings/information to date.
- Most recent performance test for secondary condenser.
- MCM Notice of Compliance Status.

SIGNATURES

Lead Inspector:

Date:

3-20-2019

Section Chief:

-Date:

3/22/19

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DIGITAL IMAGE LOG*

1. Photographer: Gregory Gehrig, FLIR video and Eleanor Kane, photos	2. Date(s) of Inspection: March 14, 2019
3. Company/Facility Name: Royal Adhesives and Sealants, LLC	4. Street Address, City, State: 2001 W. Washington St., South Bend, IN
5. Number of Images: 28	6. Archival Record Location: CD-R labeled Royal Adhesives Images 3.14.2019

Image name	Time* (EDT)	Description
IMG_0703	1001	Churn 43 and hard piping leads for material addition.
IMG_0704	1003	Churn 7.
IMG_0705	1006	Churn 54.
IMG_0706	1018	Row of churns.
IMG_0707	1025	Mixer with portable tank.
IMG_0708	1027	LDAR tag on hard piped lead for material addition.
IMG_0709	1030	Churn 56 material addition port and vent to baghouse on deck above the churn.
IMG_0710	1037	Area of observed VOC leak on primary condenser for churn 54.
IMG_0711	1038	Churn 20
IMG_0712	1041	Churn 4 condenser temp.
IMG_0713	1051	Baghouse.
IMG_0714	1051	Vents and components on roof.
IMG_0715	1051	Vents and components on roof.
IMG_0716	1053	Dust collector pressure drop, DC-4
IMG_0717	1053	Dust collector pressure drop, DC-2.
IMG_0718	1053	Dust collector pressure drop, DC-3.
IMG_0719	1053	Dust collector pressure drop, DC-1, not in service.
IMG_0720	1054	Visible emissions notations sheet for DC-3.
IMG_0721	1054	Visible emissions and pressure drop notations sheet for DC-2
IMG_0722	1057	Screen shot for secondary condenser
IMG_0723	1101	Tank farm, note toluene tank on the right.
IMG_0724	1109	PRV for hexane tank, leaking VOCs.
MOV_0014	1009	Churn 41 full of product (roofing material) waiting for dispensing.
MOV_0015	1029	Churn 54 primary condenser with VOC leak.
MOV_0016	1034	Churn 4, small churn on deck, with VOC leak.
MOV_0017	1037	Churn 22 primary condenser with VOC leak.
MOV_0018	1047	Roof vents.
MOV_0019	1106	Hexane tank with PRV leaking VOCs, and components atop other tanks.

*time stamp on IMG images (pictures) is CDT.