

Manna

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

FCE Summary Report

Facility : Knauf Insulation, LLC	SRN : B7205
Location : 1000 E NORTH ST	District : Kalamazoo
	County : CALHOUN
City : ALBION State: MI Zip Code : 49224	Compliance Status : Compliance
Source Class : MAJOR	Staff : Rex Lane
FCE Begin Date : 9/9/2014	FCE Completion Date : 9/29/2015
Comments :	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
09/09/2015	Self Initiated Inspection	Compliance	Self-initiated inspection

Activity Date	Activity Type	Compliance Status	Comments
06/18/2015	ROP Other	Compliance	<p data-bbox="971 197 1369 262">Opacity Malfunction Report - Line # 1 HEAF stack</p> <p data-bbox="971 283 1369 766">On June 12, 2015, staff received a voice mail message from Ms. Rachael Underwood, HSE Manager regarding an early morning fire in the cure oven ductwork that generated smoke and opacity in excess of 20% from the HEAF stack. Excess opacity was estimated to have been 20 minutes in duration. ROP certification report was received on 6/17/15 and reiterated same information. ROP certification report contains an original dated signature by the facility's responsible official.</p> <p data-bbox="971 787 1369 1646">On 6/18/15, staff contact Ms. Underwood to get additional details on the oven fire. According to Ms. Underwood, the Knauf resin ECOSE cures at a temperature that is 40 - 50 degrees F higher than the traditional phenol-formaldehyde (PF) binder formulation. It is somewhat more prone to combustion than PF binders. Knauf has made some modifications to their oven ductwork to reduce the accumulation of material and added more fire suppression water spray points in the ductwork in an effort to reduce the potential for fires. Ms. Underwood stated that the fire has been recorded in the oven fire log required under EU-RESCURE. Facility will not be cited for opacity under Rule 301 at this time since no actual and continuous Method 9 readings were taken during the oven ductwork fire event to demonstrate that a six minute average opacity rate was exceeded. -RIL</p>

Activity Date	Activity Type	Compliance Status	Comments
06/09/2015	MAERS	Compliance	<p>Audit of 2014 MAERS Report:</p> <p>Updated ROP permit number on Source and Emission Unit forms.</p> <p>EU-SUPPORT: Changed diesel throughput from 4658 E3 gal to 4.658 E3 gal based on documentation submitted by facility and recalculated emissions. Changed reported VOC emissions for EUSUPPORT (nat. gas) from 103 to 197 lbs.. Changed EU-RESCURE lead emissions from 4.02 lbs. to 0.4 lbs. based on review of emission documentation submitted by facility. Changed EUBINDERMIX (30501223) VOC emissions from 26.465 lbs. to 2,646.5 lbs. based on calculation error in Knau's emission documentation. Mistake was confirmed via email receipt on 6/9/15 from Rachael Underwood.</p> <p>-RIL</p>
03/19/2015	ROP SEMI 2 CERT	Compliance	<p>Semi-Annual ROP Certification Report Review: 7/1/14 - 12/31/14</p> <p>Certification report has an original dated signature by the facility's responsible official. Report identified multiple deviations for out of range scrubber water flow and differential pressure for Lines 1 and 3 and glass pull rates for all four lines. Most of the reported downtime periods for low water flow rates were due to scrubber sprayers being plugged with fibers or low water level in the recirculation tanks. Stack testing was completed in Sept./Oct. 2014 and this also resulted in out of range values during the testing period. Total deviation hours for Lines 1 and 3 were less than 1.0% of the total operating hours for 7/1/14 through 12/31/14. A violation notice will not be sent at this time.</p> <p>-RIL</p>

Activity Date	Activity Type	Compliance Status	Comments
03/19/2015	ROP Annual Cert	Compliance	<p>Annual ROP Certification Report Review: 1/1/14 - 12/31/14</p> <p>Certification report has an original dated signature by the facility's responsible official. Report identified multiple deviations for out of range scrubber water flow and differential pressure for Lines 1 and 3 and glass pull rates for all four lines. Most of the reported downtime periods for low water flow rates were due to scrubber sprayers being plugged with fibers or low water level in the recirculation tanks. Stack testing was completed in Sept./Oct. 2014 and this also resulted in out of range values during the testing period. Total deviation hours for Lines 1 and 3 were less than 1.0% of the total operating hours for 7/1/14 through 12/31/14. A violation notice will not be sent at this time. -RIL</p>

Activity Date	Activity Type	Compliance Status	Comments
03/19/2015	MACT (Part 63)	Compliance	<p>40 CFR Part 63, Subpart NNN Excess Emission/Continuous Monitoring System (CMS) Summary Report</p> <p>Summary report has an original dated signature by the facility's responsible official. Report lists the operating hours for Lines 1 and 3 for the reporting period. Scrubber gauges were calibrated in March 2015 and the bag leak detection systems were calibrated in February 2015. Total CMS downtime hours were reported for scrubber water flow and differential pressure for Lines 1 and 3 and glass pull rates for all four lines. Most of the reported downtime periods for low water flow rates were due to scrubber sprayers being plugged with fibers or low water level in the recirculation tanks. Stack testing was completed in Sept./Oct. 2014 and this also resulted in out of range values during the testing period. A semi-annual SSM report was also included and signed by the responsible official. The SSM report identified an opacity violation from SV-HEAF that was the result of an oven fire that staff were promptly notified of under Rule 912. -RIL</p>
02/11/2015	Meeting Notes	Compliance	Discussions on PTI Application No. 26-15

Activity Date	Activity Type	Compliance Status	Comments
01/12/2015	Stack Test	Compliance	<p>Revised Test Report Results</p> <p>Following submittal of performance test results in November 2014, Knauf discovered an error in the total chromium emission rates reported for the electric melters (e.g. results reported in milligrams/m<sup>3</sup> rather than micrograms/m<sup>3</sup>) causing over-reporting of actual emission rates in the original test report. The facility is required to sample for either hexavalent or total chromium emissions from the electric top melters every three years. However, the melters are not subject to either a hexavalent or total chromium emission limit. A certification form was attached and contains an original dated signature by the facility's responsible official. -RIL</p>
12/09/2014	Stack Test	Compliance	<p>Knauf Insulation Stack Test Report - Lines 1, 2, 3 and 4 and Melters 6, 7, 8 and 9</p> <p>Testing was performed 9/29/14 - 10/3/14 as required to meet ROP requirements and of 40 CFR Part 60, Subpart PPP and 40 CFR Part 63, Subpart NNN. Glass pull rate during testing was above 8,100 pounds/hour or greater than 90% of permitted production process rate. All test results demonstrated compliance with applicable emission limits in the existing ROP, PTI # 177-12B and # 133-14. -RIL</p>
11/20/2014	Meeting Notes	Compliance	Pre-application Meeting

Activity Date	Activity Type	Compliance Status	Comments
10/09/2014	Rule 912		<p>Opacity Exceedance - Line # 1 HEAF Stack</p> <p>Staff (Rex Lane) was notified by Ms. Rachael Underwood, HSE Manager, Knauf Insulation by phone on 10/2/14 that the facility was reporting an opacity exceedance on their Line # 1 curing and cooling HEAF stack. A follow up written report was received on 10/6/14 and indicates that at approximately 6:45 pm, a fire in the curing oven ductwork spread to the HEAF stack which caused black and gray smoke in excess of 20% for approximately 3 hours. Excess opacity was caused by an uncommon and infrequent event (i.e. oven fire) rather than due to malfunction of process or control equipment. Knauf promptly notified MDEQ of the event and sent written notification within 10 days of the event under Rule 912. Report included an ROP certification form that was signed and dated by the responsible official. A violation notice will not be sent at this time. -RIL</p>
10/02/2014	Stack Test Observation	Compliance	Stack Test Observations - EU-EM8 and FG-RES2
10/02/2014	Telephone Notes	Compliance	Resinated Line # 1 Cure Oven Fire
09/29/2014	Stack Test Observation	Compliance	Stack Test Observations - EU-RESFORMCOL and EU-RESCURE (FG-RES1)

Activity Date	Activity Type	Compliance Status	Comments
09/25/2014	ROP Semi 1 Cert	Compliance	<p>Review of ROP Semi-annual Certification Report: 1/1/14 - 6/30/14</p> <p>Report has an original dated signature by the facility's responsible official. Facility reported a number of deviations related to low or high scrubber water flow rate and reduced scrubber differential pressure values on Resinated Lines # 1 and # 3 and for the non-resonated lines. These deviations were almost all less than two hours in length and were due to scrubber sprayers or pumps being plugged with fibers or due to high/low water level in the scrubber return water tanks. There were also a few instances where scrubber parameter readings were either not taken or readings were not recorded into the computer database. There were also a few instances where the bag leak detection system alarmed on the melter baghouses. The facility promptly addressed out of range scrubber parameters and bag leak detection alarms. A violation notice will not be sent at this time. -RIL</p>
09/25/2014	MACT (Part 63)	Compliance	<p>Review of Semi-annual MACT Excess Emissions and CMS Performance Summary Report: 1/1/14 - 6/30/14</p> <p>Report contains an original date signature by the facility's responsible official. Facility reports no excess emissions under 40 CFR Part 63, Subpart NNN during the reporting period. Facility reported 32.5 hours of CMS downtime on Resinated Line # 3 which is less than 1% of operating time during the period. The facility also reported 1.0 hours of CMS downtime on Line 4 glass pull rates which is 0.02% of operating time during the period. A violation notice will not be sent at this time. -RIL</p>
09/15/2014	Telephone Notes		Emission Testing week of Oct. 20th

Name:

RIL

Date:

9/29/15

Supervisor:

MA 9/29/2015