

## **Annual Compliance Certification - WVDAQ Facility ID 037-00108**

1 message

Grant Morgan < Grant. Morgan@erm.com>

Tue, Mar 15, 2022 at 9:30 AM

To: "DEPAirQualityReports@wv.gov" <DEPAirQualityReports@wv.gov>
Cc: Ryan Durrill <ryan.durrill@rockwool.com>, Stacey Phillips <stacey.phillips@rockwool.com>, Jeff Twaddle <Jeff.Twaddle@erm.com>

Hello,

On behalf of Roxul USA, Inc. (dba ROCKWOOL), please find the attached Annual Compliance Certification as required by Permit No. R14-0037.

As DEP commences review, please reach out with questions and comments.

Thank you,

Grant Morgan, P.E. (WV)

ERM | 971 WV-34 | Hurricane, WV | 25526

mobile: 304.590.6160

mail: grant.morgan@erm.com | www.erm.com



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March 15, 2022

Laura Crowder, Director Division of Air Quality West Virginia Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304-2345

Re: Annual Compliance Certification ROCKWOOL USA, Inc., Kearneysville, WV (AIR Permit No. R14-0037)

Dear Ms. Crowder:

The ROCKWOOL USA, Inc. (ROCKWOOL) facility submits the enclosed Annual Compliance Certification, as required by permit R14-0037, condition 4.5.1.b. The ROCKWOOL facility operates as a major source and commenced initial operations on May 22, 2021<sup>1</sup>. As required by the West Virginia Department of Environmental Protection (WVDEP), a Title V Permit Application will be filed within 1 year of commencing operations.

The enclosed Annual Compliance Certification makes note of eleven (11) items where affirmative statements of compliance cannot be provided. Eight (8) these eleven (11) items are attributed to minor changes in facility configuration, such as changes to installed unit sizes or slight changes in modeled stack locations. The remaining three (3) items have previously been reported to WVDEP as a part of the Mineral Wool MACT Semi-annual Report or as a part of the Initial Source Testing Compliance Result Report. ROCKWOOL is preparing to submit an updated R14 permit application (at the time of Title V submittal) that will update the permit to reflect as-constructed conditions at the RAN site. The permitting action will result in a net decrease in emissions. RAN currently operates and will continue to operate in compliance with Federal and State requirements and site-wide emissions are below the limits established in R14-0037.

If you have any questions or comments regarding this submittal or require additional information, please contact our SHEQ Manager, Ryan Durrill, at (304) 830-6464 or via email at ryan.durrill@ROCKWOOL.com.

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<sup>&</sup>lt;sup>1</sup> Per the NESHAP General Provisions in §63.2, startup means the setting in operation of an affected source or portion of an affected source for any purpose.



Sincerely,

Mark Graves

Director of Operations ROCKWOOL USA, Inc.

Cc: Attn: Director, Air & Radiation Division

United States Environmental Protection Agency, Region 3 (Mid-Atlantic)

1650 Arch Street

Philadelphia, PA 19103-2029

Ryan Durrill - ROCKWOOL USA, Inc.

Jeff Twaddle - Environmental Resources Management, Inc.



# WV Division of Air Quality 601 57th Street SE

Charleston, WV 25304

Telephone Number: (304) 926-0475

Fax Number: (304) 926-0478

#### TITLE V OPERATING PERMIT ANNUAL COMPLIANCE CERTIFICATION1

Name of Permittee: Roxul USA, Inc. dba ROCKWOOL	Name of Facility: RAN Mineral Wool Production Facility					
Permit Number: R30-	AFS Plant ID Number: 03-54-037-00108					
Mailing Address: 665 Northport Avenue Kearneysville, WV 25430	Contact Person: Ryan Durrill Title: SHEQ Manager Telephone: (304) 830 -6464					
For the reporting period beginning 01						
Based upon the specific test methods, monitoring, recordk Title V Operating Permit and any other information reason reporting period stated above:	eeping and/or reporting required under the permittee's nably available, I, the undersigned, hereby certify for the					
a. The permittee has been in compliance with all General Conditions 2.3.2, 2.3.3, 2.5.1.a and b, 2.10, 2.11.2, 2.12, 2.13.1, 2.14, 2.15, 2.19, 2.20, and 2.25 of the permittee's Title V Operating Permit, except to the extent that the permittee's Title V Operating Permit and underlying rules explicitly provide for exception periods or where deviations have been identified in either the 1 <sup>st</sup> Half Semi-annual Monitoring Report previously submitted or the 2 <sup>nd</sup> Half Semi-annual Monitoring Report attached to this certification.						
and source specific requirements of the permittee's including all emission limitations and standards set the permit and underlying rules explicitly provide for	mitting equipment and processes subject to facility-wide Title V Operating Permit with all such requirements forth in the referenced permit, except to the extent that for exception periods or where deviations have been pering Report previously submitted or the 2 <sup>nd</sup> Half Semi-					
c. Based on information and belief formed after reason document and attachments are true, accurate, and co	nable inquiry, the statements and information in this omplete. <sup>1</sup>					
Responsible	e Official <sup>2</sup>					
Name: Mark Graves	Title: Director of Operations					
Signature:	Date: 03/14/2022					
Note: Please check all required attachments included with	this Annual Compliance Certification.					
Form A – Annual Compliance Certification Semi-Annual Monitoring Report for the 2 <sup>nd</sup> Submit signed electronic copy by e-mail to: DEF	Half (July 1st through December 31st) PAirQualityReports@wv.gov					
Form A – Annual Compliance Certification  Semi-Annual Monitoring Report for the 1st Half (January 1st through June 30th)  Semi-Annual Monitoring Report for the 2nd Half (July 1st through December 31st)  Submit signed electronic copy by e-mail to: R3 APD Permits@epa.gov						
Please note that the West Virginia Code states that any person who knowingly misrepreser to be maintained is guilty of a misdemeanor and may be subject to fines and/or imprisonm  A Responsible Official as defined by 45CSR§30-2.38. must sign this certification.	nts any material fact in an application, record, report, plan or other document filed or required tent in accordance with W.VA. Code §22-5-6(b).					

Note: Print and scan or print to a PDF file. E-mail the completed PDF form to the addresses above.

		Form A - Annual Compliance Cert	tification			
Permittee: ROXUL USA,	, Inc. dba ROCKWOOL	•	Facility: RAN Facility		Permit Number: R14-00	937
		For the reporting period beginning 01/01/2021 and e	ending 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
Total Facility	Emission Units: 1.0	[Not Verbatim]: Please see permit for table of Emission Units	Informational	☐ Yes  ✓ No	One - See Cover Letter	1st Half (January 1st through June 30th)  2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.1.1	All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th)
Total Facility	General Conditions: 2.1.2	The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.	Informational	<b>✓</b> Yes		2nd Half (July 1st through December 31st)  1st Half (January 1st through June 30th)
Total Facility	General Conditions: 2.1.3	"Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated	Informational	□ No		2nd Half (July 1st through December 31st)
Ž		authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.		Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.2	[Not Verbatim]: Please see permit for list of acronyms	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.3	This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §\$22-5-1 et seq. and the following Legislative Rules promulgated thereunder:	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.3.1	45CSR13 - Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation; and	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.3.2	45CSR14 - Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration.	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.4	This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.5.1	The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Applications R14-0037 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;  [45CSR§§13-5.11 and 13-10.3]	Construct and operate facility in accordance with permit application	☐ Yes ✓ No	One - See Cover Letter	1st Half (January 1st through June 30th)  2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.5.2	The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;	Comply with permit	☐ Yes ✓ No	One - See Cover Letter	1st Half (January 1st through June 30th)  2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.5.3	Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.5.4	Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.6	The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.	Supply information to the Secretary as requested	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.7	Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.	If needed, submit corrected or supplemental information	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.8	The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13. [45CSR§13-4]	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.9	The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13. [45CSR§13-5.4.]	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Cer	tification			
Permittee: ROXUL USA	, Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-00	037
	_	For the reporting period beginning 01/01/2021 and of	·		_	
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
Total Facility		The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.  [45CSR§13-5.1]	Informational	Yes		1st Half (January 1st through June 30th)
				No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.11	The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:	Allow entry to WV Secretary Representatives	Yes		1st Half (January 1st through June 30th)
		a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;		□ No		2nd Half (July 1st through December 31st)
		b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;				
		c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;				
		d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.				
Total Facility	General Conditions: 2.12.	An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-	Informational	<b>▼</b> Yes		☐ 1st Half (January 1st through June 30th)
		based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.		□ No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.12.	Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based	Informational			
		emission limitations if the conditions of Section 2.12.3 are met.		✓ Yes  □ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.12.	The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:	Submit notice within 1 working day and demonstrate affirmative defense of emergency	✓ Yes		1st Half (January 1st through June 30th)
		a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;	through signed evidence as needed	□ No		2nd Half (July 1st through December 31st)
		b. The permitted facility was at the time being properly operated;				
		c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,				
		d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.				
Total Facility	General Conditions: 2.12.	In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.	Informational	<b>✓</b> Yes		☐ 1st Half (January 1st through June 30th)
				□ No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.12.	The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.	Informational	<b>✓</b> Yes		1st Half (January 1st through June 30th)
				No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.13	order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding	Informational	<b>✓</b> Yes		☐ 1st Half (January 1st through June 30th)
		consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.		□ No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.14	In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60)	If needed, submit notice within 2 calendar weeks of the passing of the sixtieth day of the suspension	Yes		1st Half (January 1st through June 30th)
		day of the suspension period.	period	□ No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.15	This permit does not convey any property rights of any sort or any exclusive privilege.	Informational	<b>✓</b> Yes		1st Half (January 1st through June 30th)
				□ No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.16	The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.	Informational	<b>✓</b> Yes		1st Half (January 1st through June 30th)
				□No		2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.17	This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]	Informational	<b>✓</b> Yes		1st Half (January 1st through June 30th)
				No		2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Certif	fication			
Permittee: ROXUL USA,	Inc. dba ROCKWOOL	F	Facility: RAN Facility		Permit Number: R14-00	937
		For the reporting period beginning 01/01/2021 and end	ding 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
Total Facility	General Conditions: 2.18		Submit notification no later than 30 calendar days after startup of operations	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	General Conditions: 2.19	Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.	nformational	✓ Yes		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.1.1		Open burning is not permitted, with some	<b>✓</b> Yes		☐ 1st Half (January 1st through June 30th)
	1	[45CSR§6-3.1.]	exceptions	☐ No		2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.1.2	Open burning exemptions. The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation.  Notification shall be made by such means as the Secretary may deem necessary and feasible.  [45CSR§6-3.2.]	nformational	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.1.3	renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms	inspect for asbestos prior to demolition and submit notification to Secretary, EPA, and Bureau for Public Health 10 days before asbestos removal as needed	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.1.4	Odor. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  [45CSR§4-3.1 State-Enforceable only.]	Prevent odorous emissions	✓ Yes		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.1.5	Permanent shutdown. A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period In may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.  [45CSR§13-10.5.]	nformational	✓ Yes  □ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.1.6	Standby plan for reducing emissions. When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of Pair pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.  [45CSR§11-5.2.]	Prepare standby plan for reducing emissions if requested by Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.2.1	A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Unless otherwise specified, compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method. However, nothing under 3.2.1. requires that continuous performance testing take place for the entire averaging period time frame (e.g., performance testing to show compliance with a $PM_{10}$ emission limit is not necessarily required for 24 consecutive hours). The required length of time of a performance test will be determined by the appropriate test method and compliance	Determine compliance with annual emission limits based on rolling 12 month total unless otherwise specified. Determine compliance with hourly emission limits based on applicable NAAQS averaging times or, where applicable, as given in any approved performance testing method unless otherwise specified.	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.3.1		Conduct stack states according to permit; Allow Secretary to witness or conduct tests	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.3.1(a)		Perform additional or alternative testing to demonstrate compliance if required by the Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.3.1(b)		Perform additional or alternative testing to demonstrate compliance if required by the Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.3.1(c)		Submit stack testing protocol at least 30 days prior to testing and testing notification at least 15 days prior to testing	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Certi	fication			
Permittee: ROXUL USA	, Inc. dba ROCKWOOL	<u> </u>	Facility: RAN Facility		Permit Number: R14-00	37
		For the reporting period beginning 01/01/2021 and en				
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
Total Facility	Facility-Wide Requirements: 3.3.1(d)		Submit stack test report with compliance certification within 60 days of completion of test	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.4.1		Maintain records of all information required by permit for 5 years; retain at least the most recent 2 years of data on site	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.4.2	Odors. For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.  [45CSR§4. State-Enforceable only.]	Maintain a record of all odor complaints received	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.5.1	USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Responsible official must certify all submittals to DAQ and/or USEPA required by the permit	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.5.2	Confidential information. A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W. Va. Code § 22-5-10 and 45CSR31.	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility  Total Facility	Facility-Wide Requirements: 3.5.3	Correspondence. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:  DAQ:  Director WVDEP  Division of Air Quality  601 57th Street SE  Charleston, WV 25304-2345  US EPA:  Associate Director  Office of Air Enforcement and Compliance Assistance - (3AP20)  U. S. Environmental Protection Agency Region III  1650 Arch Street  Philadelphia, PA 19103-2029  DAQ Compliance and Enforcement <sup>1</sup> :  DEPAirOualityReports@wv.gov <sup>1</sup> For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.  In accordance with 45CSR30 - Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on	Submit annual certified emissions statement and	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
	Requirements: 3.5.4.1	an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.	pay fees on an annual basis; Maintain receipt for the appropriate fee on the premises	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.5.4.2	In accordance with 45CSR30 - Operating Permit Program, enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with the Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.	Submit CES Invoice and fee within 30 days prior to date of initial startup	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Facility-Wide Requirements: 3.5.5	the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.	Prepare and submit emission inventory for the previous year when designated by the Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.1.1	Only those emission units/sources as identified in Table 1.0, with the exception of any de minimis sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R14-0037, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.		☐ Yes ☑ No	One - See Cover Letter	1st Half (January 1st through June 30th) 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Cer	tification			
Permittee: ROXUL USA,	Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-00	)37
		For the reporting period beginning 01/01/2021 and	ending 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
Total Facility	Source-Specific Requirements: 4.1.2(a), (b)	Material Handling Operations The handling of raw materials used in the production of mineral wool (including but not limited to igneous rocks, slags, dolomite/limestone, and mineral additives), coal milling material handling operations, recycling operations, and all other operations involved in the handling or processing of friable materials with a potential of producing particulate matter emissions, shall be in accordance with the following requirements:  a. The permittee shall not exceed the specified maximum design capacities of the following operations:  Maximum Design Capacities:  Raw Materials <sup>(1)</sup> - 716 <sup>(2)</sup> Ton/Day (650 Tonne/Day)  Lump Coal/Pet Coke - 93 <sup>(3)</sup> Ton/Day (84 Tonne/Day)  Portable Melt Crushing - <150 TPH (<136 Tonne/Hour)  (1) Rock, Slag, and Minerals  (2) As based on the Charging Building (B220) Conveyor Belt.  (3) As based on the Coal Mill Feed Conveyor Belt.  b. The permittee shall not exceed the specified maximum annual throughputs or hours of operation of the following operations:  Maximum Annual Throughputs:  Portable Melt Crushing - 540 Hours of Operation	Monitor throughputs of Raw Materials, Lump Coal/Pet Coke, and Portable Melt Crushing as well as Portable Melt Crushing hours of operation to ensure permitted limits are not exceeded	✓ Yes  No	period?	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF03A, IMF03B, IMF03C, IMF04, IMF06, IMF07A, IMF07B, IMF08, IMF09, IMF10, IMF11, IMF12, IMF13, IMF14, IMF15, IMF16, IMF17, IMF18, IMF21, IMF25, B235, CE01, CE02, CM08, CM09, CM10, CM11	Source-Specific Requirements: 4.1.2(c)	c. The permittee shall not exceed the maximum emission limits for the specified emission points given in the following tables:  [Not Verbatim]: Please see tables 4.1.2(c)(1) and 4.1.2(c)(2) in the permit for Material Handling Operations Stack Emission Limits	Comply with emission limitations	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
B215, RMS, RM_REJ, S_REJ, B170, B210, B230, B231	Source-Specific Requirements: 4.1.2(d)	d. The permittee shall not exceed the maximum emission limits and shall utilize the control methods for the specified fugitive emission source given in the following tables:  [Not Verbatim]: Please see tables 4.1.2(d)(1) and 4.1.2(d)(2) in the permit for Material Handling Operations Fugitive Emission Limits	s Comply with emission limitations and utilize control methods for specified fugitive sources	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
B170 IMF17, IMF18, B235	Source-Specific Requirements: 4.1.2(e) Source-Specific Requirements: 4.1.2(f)	e. Melting Furnace Portable Crusher Emissions from the Melting Furnace Portable Crusher (not including associated storage pile or pit waste drop) shall not exceed the limits given in the following table:  [Not Verbatim]: Please see tables 4.1.2(e) in the permit for Melting Furnace Portable Crusher Emission Limits  f. In addition to the particulate matter controls as required in the Emission Units Table 1.0, the raw material mixer and crusher located in the Charging Building (B220) and the coal conveyer transfer point located inside the Coal Milling Building (B235) shall be equipped with fabric filters to control particulate matter emissions from these sources. The maximum outlet grain loading concentration for each of these fabric	Comply with emission limitations  Equip sources with fabric filters meeting the maximum outlet grain loading concentration requirements	✓ Yes  No  Yes  ✓ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)  ✓ 1st Half (January 1st through June 30th) ✓ 2nd Half (July 1st through December 31st)
RMS, B210, B211, B230, B170	Source-Specific Requirements: 4.1.2(g)	g. Outdoor Material Storage Areas All outdoor raw material, coal, pit waste, or recycled material storage shall be in accordance with the following:  (1) The permittee is authorized to operate one (1) raw material stockpile (RMS) that shall not exceed a base of 5,382 ft <sup>2</sup> (500 m <sup>2</sup> ) and shall utilize 3-sided enclosures to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;  (2) The permittee is authorized to operate Building 210 and 211 for raw material storage. These buildings shall utilize 3-sided enclosures and a roof to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;  (3) The permittee is authorized to operate one (1) coal bunker (B230) that shall utilize a 3-sided enclosure, a roof, and a closeable bay door (o equivalent design) to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;  (4) The permittee is authorized to operate one (1) recycled material stockpile. The material in this storage area is limited to the slag-like material tapped from the Melting Furnace that is of such a physical nature so as to limit any significant generation of fugitive matter from wind erosion and pile activity;  (5) The permittee is authorized to operate one (1) pit waste (crushed recycled material) storage area (B170) that shall not exceed a base of 19,375 ft <sup>2</sup> (1,800 m <sup>2</sup> ) and shall utilize a 3-sidedenclosure to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;	r	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
		(7) All storage area enclosures shall be reasonably maintained and any significant holes shall be repaired immediately.				

		Form A - Annual Compliance Cert	tification			
Permittee: ROXUL USA,	Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-00	937
		For the reporting period beginning 01/01/2021 and e	ending 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
Rd_FP, IMF03, IMF08,	Source-Specific Requirements: 4.1.2(h)  Source-Specific Requirements: 4.1.2(i)	h. Haulroads and Mobile Work Areas Fugitive particulate emissions resulting from use of haulroads and mobile work areas shall be minimized by the following:  (1) The permittee shall pave, and maintain such pavement, on all haulroads and mobile work areas (including a reasonable shoulder area) within the plant boundary;  (2) The permittee shall maintain access to a vacuum sweeper truck in good operating condition, and shall utilize same as needed to remove excess dirt and dust from all haulroads and mobile work areas. The haulroads and mobile work areas shall be flushed with water immediately prior to each vacuum sweeping (flushing may be part of vacuum sweeper truck); and  (3) The permittee shall collect, in a timely fashion, material spilled on haulroads that could become airborne if it dried or were subject to vehicle traffic.  i. 45CSR7 The handling of raw materials used in the production of mineral wool and coal milling material handling operations shall comply with all	Maintain haulroads and mobile work areas according to permit  Comply with applicable requirements of 45CSR7; Conduct visible emission monitoring in accordance	✓ Yes  No  Yes	period?	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st) ☐ 1st Half (January 1st through June 30th)
IMF09, IMF25, IMF21, CM10, CM11, CM08, CM09, CE01, CE02, IMF06, IMF04, IMF13		applicable requirements of 45CSR7 including, but not limited to, the following:  (1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.  [45CSR§7-3.1]  (2) The provisions of subsection 3 .1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.  [45CSR§7-3.2]  (3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.  [45CSR§7-4.1]  (4) No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.  [45CSR§7-5.1]	with the procedures outlined under 45CSR7A when designated by the Secretary; Equip fugitive-generating sources with a system to minimize particulate matter	No		2nd Half (July 1st through December 31st)
RM_REJ, S_REJ, IMF07, IMF10, IMF11, IMF12, IMF14, IMF15, IMF16, IMF17, IMF18	Source-Specific Requirements: 4.1.2(j)	j. 40 CFR 60, Subpart OOO The non-metallic mineral handling operations (see Table 4-1 of Permit Application R14-0037 for a complete list of affected sources) prior to the furnace building (B300) are subject to the applicable limitations and standards under 40 CFR 60, Subpart OOO including, but not limited to, the following:  (1) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under \$60.8. The requirements in Table 2 of Subpart OOO apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.  [40 CFR \$60.672(a)]  (2) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under \$60.11. The requirements in Table 3 of Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.  [40 CFR \$60.672(b)]  (3) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.  [40 CFR \$60.672(b)]  (4) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in 40 CFR \$60.672(a) and (b), or the building enclosing the affected facility or facilities must comply with the following emission limits:  (1) Fugitive emissions from the building openings (except for vents as defined in \$60.671) must not exceed 7 percent opacity; and (2) Vents (as defined in \$60.671) in the building must meet the applicable stack emission limits and compliance requirements		Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Permittee: ROXUL USA,	Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-00	037
		For the reporting period beginning 01/01/2021 and e				
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
MF05	Source-Specific Requirements: 4.1.3(a)-	Coal Mill Burner and Fluidized Bed Dryer The Coal Mill Burner and Fluidized Bed Dryer, identified as IMF05, shall meet the following requirements:	Comply with maximum design heat input and only burn PNG in Coal Mill Burner; Comply with	<b>✓</b> Yes		1st Half (January 1st through June 30th)
	(d)	a. The Coal Mill Burner shall not exceed an MDHI of 6.00 mmBtu/hr (1,757 kW) shall only be fired by pipeline-quality natural gas (PNG);	Fluidized Bed Dryer design capacity; Utilize IMF05-BH for control of filterable PM; Comply with emission limitations	☐ No		2nd Half (July 1st through December 31st)
		b. The Fluidized Bed Dryer shall have a design capacity not to exceed 200 tons per day;				
		c. The combined exhaust from the Coal Mill Burner and Fluidized Bed Dryer shall be vented to first a separator and then to a baghouse (IMF05-BH) for control of filterable particulate matter;				
		d. The combined exhaust of the Coal Mill Burner and Fluidized Bed Dryer shall not exceed the emission limits, and shall utilize the specified BACT Technology, as given in the following table:  [Not Verbatim]: Please see table 4.1.3(d) in the permit for Coal Mill Burner and Fluidized Bed Dryer Emission Limits				
MF05	Source-Specific Requirements: 4.1.3(e)	e. 45CSR7 The Coal Mill Burner and Fluidized Bed Dryer shall comply with all applicable requirements of 45CSR7 including, but not limited to, the	Comply with applicable requirements of 45CSR7; Conduct visible emission monitoring in accordance	✓ Yes		☐ 1st Half (January 1st through June 30th)
	requirements. 111.5(e)	following:	with the procedures outlined under 45CSR7A when designated by the Secretary	□No		2nd Half (July 1st through December 31st)
		(1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7. [45CSR§7-3.1]				
		(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. [45CSR§7-3.2]				
		(3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.  [45CSR§7-4.1]				
MF01	Source-Specific	Melting Furnace  The Malting Formace identified as INCO 1 and 10 months following according to the following to the f	Comply with emission limitations; utilize specified BACT Technology	Yes	One - See Cover Letter	1st Half (January 1st through June 30th)
	Requirements: 4.1.4(a)	The Melting Furnace, identified as IMF01, shall meet the following requirements:  a. The Melting Furnace shall not exceed the emission limits, and shall utilize the specified BACT Technology, as given in the following table:	BACT Technology	✓ No		✓ 2nd Half (July 1st through December 31st)
		[Not Verbatim]: Please see table 4.1.4(a) in the permit for Melting Furnace Emission Limits				
MF01	Source-Specific Requirements: 4.1.4(b)	b. 45CSR7 The Melting Furnace shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:	Comply with applicable requirements of 45CSR7; Conduct visible emission monitoring in accordance	✓ Yes		1st Half (January 1st through June 30th)
	Requirements: 4.1.4(b)	(1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source	with the procedures outlined under 45CSR7A when designated by the Secretary	□No		2nd Half (July 1st through December 31st)
		operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.  [45CSR§7-3.1]	when designated by the Secretary			
		(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. [45CSR§7-3.2]				
		(3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.  [45CSR§7-4.1]				
		(4) Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this				
		rule. [45CSR§7-4.2]				
MF01	Source-Specific Requirements: 4.1.4(c)	c. 45CSR10 The Melting Furnace shall comply with all applicable requirements of 45CSR10 including, but not limited to, the following:	Comply with sulfur dioxide concentration limitations given in 45CSR10; Conduct	<b>✓</b> Yes		☐ 1st Half (January 1st through June 30th)
R		(1) No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through	testing/monitoring if designated by the Director	□ No		2nd Half (July 1st through December 31st)
		4.1.e. [45CSR§10-3.1]				

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Permittee: ROXUL USA,	Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-0	037
Emission Unit ID	Condition Number of Permit Requirement	For the reporting period beginning 01/01/2021 and of Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
IMF01	Source-Specific Requirements: 4.1.4(d)	d. 40 CFR 63, Subpart DDD The Melting Furnace shall comply with all applicable requirements of 40 CFR 63, Subpart DDD including, but not limited to, the following:  (1) §63.1178 For cupolas, what standards must I meet? (i) You must control emissions from each cupola as specified in Table 2 to this subpart.  [40 CFR§63.1178(a)] (ii) You must meet the following operating limits for each cupola:  [40 CFR§63.1178(b)] (A) Begin within one hour after the alarm on a bag leak detection system sounds, and complete in a timely manner, corrective actions as specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart.  [40 CFR§63.1178(b)(1)) (B) When the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period, develop and implement a written quality improvement plan (QIP) consistent with the compliance assurance monitoring requirements o §64.8(b)-(d) of 40 CFR part 64.  [40 CFR§63.1178(b)(2)] (C) Additionally, on or after the applicable compliance date for each new or reconstructed cupola, you must either:  [40 CFR§63.1178(b)(3)] (I) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test, or  [40 CFR§63.1178(b)(3)(1)] (II) Maintain the percent excess oxygen in the cupola at or above the level established during the performance test. You must determine the percent excess oxygen using the following equation:  [40 CFR§63.1178(b)(3)(11)] Percent excess oxygen = Percentage of excess oxygen present above the stoichiometric balance of 1.00, (%).  1.00 = Ratio of oxygen in a cupola combustion chamber divided by the stoichiometric balance of 1.00, (%).  1.00 = Ratio of oxygen in a cupola combustion chamber divided by the stoichiometric quantity of oxygen required to obtain complete combustion of fuel.  Oxygen available = Quantity of oxygen introduced into the cupola	Comply with emission limits given in Table 2 of 40CFR63, Subpart DDD; comply with operating limits for cupolas outlined in 40 CFR§63.1178  RAN submitted Mineral Wool MACT Semiannual Report on January 31st, 2022 detailing deviation for Melting Furnace regarding excess oxygen level	☐ Yes ✓ No	One - See Cover Letter	Ist Half (January 1st through June 30th)  ✓ 2nd Half (July 1st through December 31st)
GUT-EX, SPN, CO-HD, CO, CS	Source-Specific Requirements: 4.1.5(a)	Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section The Gutter Exhaust (GUT-EX), Spinning Chamber (SPN), Curing Oven Hoods (CO-HD), Curing Oven (CO), and Cooling Section (CS) shall meet the following requirements:  a. The Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section shall not exceed the aggregate emission limits (as emitted from the Wet Electrostatic Precipitator (WESP) stack (HE01)), and each shall utilize the specified BACT Technology as given in the following table:  [Not Verbatim]: Please see table 4.1.5(a) in the permit for Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section Emission Limits	Comply with emission limitations and utilize specified BACT Technology	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
GUT-EX, CO-HD, CO, SPN	Source-Specific Requirements: 4.1.5(b)	The Gutter Exhaust, Curing Oven Hoods, Curing Oven, and Spinning Chamber shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:  (1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.  [45CSR§7-3.1]  (2) The provisions of subsection 3 .1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.  [45CSR§7-3.2]  (3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.  [45CSR§7-4.1]  (4) Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in Excess of the quantity given in Table 45-7B found at the end of this rule.  [45CSR§7-4.2]	Comply with applicable requirements of 45CSR7; Conduct visible emission monitoring in accordance with the procedures outlined under 45CSR7A when designated by the Secretary	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
GUT-EX, CO-HD, CO, SPN	Source-Specific Requirements: 4.1.5(c)	c. 40 CFR 63, Subpart DDD The Gutter Exhaust, Curing Oven Hoods, Curing Oven, and Spinning Chamber shall comply with all applicable requirements of 40 CFR 63, Subpart DDD including, but not limited to, the following:  (1) §63.1179 For curing ovens or combined collection/curing operations, what standards must I meet?  (i) You must control emissions from each curing oven or combined collection/curing operations as specified in Table 2 to this subpart.  [43 CFR§60.1179(a)]  [Not Verbatim]: Please see table 3 to Subpart DDD of Part 63 in the permit for Emission Limits and Compliance Dates	Comply with emission limitations in pounds of formaldehyde, methanol, and phenol per ton melt for combined vertical collection/curing operations as given in 40 CFR §63.1179  RAN submitted Mineral Wool MACT Semiannual Report on January 31st, 2022 detailing deviation for Curing Oven Afterburner temperature	☐ Yes  ✓ No	One - See Cover Letter	1st Half (January 1st through June 30th)  ✓ 2nd Half (July 1st through December 31st)

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Permittee: ROXUL USA,	Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-00	937
		For the reporting period beginning 01/01/2021 and	ending 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
CM12, CM13	Source-Specific Requirements: 4.1.6(a)-	Fleece Application The Fleece Application operations shall meet the following requirements:	Comply with emission limitations; utilize specified BACT Technology	<b>∨</b> Yes		1st Half (January 1st through June 30th)
	(b)	a. The maximum emissions of VOCs and HAPs from the Fleece Application operations each shall not exceed of 7.14 tons per month (6.48 tonnes/month) and a BACT limit (BACT limit is VOCs only) of 28.58 TPY (23.21 tonnes/year);		□ No		2nd Half (July 1st through December 31st)
		b. The BACT Technology for the Fleece Application operations is the use of low-VOC coatings and the utilization of Good Work Practices. "Low-VOC coatings" shall mean the monthly average of all coating materials used during fleece application operations shall not exceed 0.016 lb VOC/lb-coating (0.016 kg-VOC/kg-coating) material as-applied on a monthly average basis. "Good Work Practices" shall mean storing VOC-containing materials in closed tanks or containers, cleaning up spills, and minimizing cleaning with VOC-containing cleaners; and				
CM12, CM13	Source-Specific	c. 40 CFR 63, Subpart JJJJ	Comply with applicable requirements of 40CFR63			
Civil2, Civil3	Requirements: 4.1.6(c)	The fleece application operations shall comply with all applicable requirements of 40 CFR 63, Subpart JJJJ including, but not limited to, the following:	Subpart JJJJ	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
		What emission standards must I meet? (1) If you own or operate any affected source that is subject to the requirements of this subpart, you must comply with these requirements on and after the compliance dates as specified in §63.3330. [40 CFR§63.3320(a)] (2) You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of this section. [40 CFR§63.3320(b)] (i) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or				
		[40 CFR§63.3320(b)(1)] (ii) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or [40 CFR§63.3320(b)(2)] (iii) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of				
		the coating solids applied for each month at new affected sources.  [40 CFR§63.3320(b)(3)]  (iv) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration ofno greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent.  [40 CFR§63.3320(b)(4)]				
		(3) You must demonstrate compliance with this subpart by following the procedures in §63.3370.  [40 CFR§63.3320(c)]				
RFNE1, RFNE2, RFNE3, RFNE4, RFNE5, RFNE6,	Requirements: 4.1.7(a)-	Rockfon Line The Rockfon Line shall meet the following requirements:	Comply with emission limitations from the application of glue and coatings; Utilize the	✓ Yes		1st Half (January 1st through June 30th)
RFNE7, RFNE8, RFNE9	(c)	a. The maximum aggregate VOC emissions from the application of glue and coatings in the Rockfon line shall not exceed 8.98 tons/month (8.15 tonne/month) and a BACT limit of 35.93 TPY (32.60 tonne/yr);	specified BACT Technology for the application of glue and coatings; Comply with maximum design heat input and only combust PNG in Rockfon Line Ovens	□ No		2nd Half (July 1st through December 31st)
		b. The BACT Technology for the application of glue and coatings in the Rockfon Line is the use of low-VOC materials and the utilization of Good Work Practices. "Low-VOC materials" shall mean the use of glue is limited to containing (BACT Limit) of a maximum VOC content of 0.57 lb-VOC/gallon-glue (70 g-VOC/L-material) and the use of coatings are limited to containing (BACT Limit) a maximum VOC content of 0.67 lb-VOC/gallon-material (80 g-VOC/L-material). No HAP-containing glues or coatings shall be used in the Rockfon Line. "Good Work Practices" shall mean storing VOC-containing materials in closed tanks or containers, cleaning up spills, and minimizing cleaning with VOC-containing cleaners;				
		c. The ovens used in the Rockfon line shall only combust PNG and each not exceed the aggregate MDHI (of all burners) specified in the following table:				
		Table 4.1.7(c): Rockfon Line Ovens MDHI Oven ID MDHI RFN-E3 2.73 mmBtu/hr (800 kW) RFN-E4 2.05 mmBtu/hr (600 kW) RFN-E6 4.78 mmBtu/hr (1,400 kW) RFN-E9 2.73 mmBtu/hr (800 kW)				
RFNE1, RFNE2, RFNE3, RFNE4, RFNE5, RFNE6, RFNE7, RFNE8, RFNE9	Requirements: 4.1.7(d)-	d. The Rockfon Line shall not exceed the emission limits (not including VOCs resulting from the use of glue and coatings as limited under 4.1.7(a)), and each shall utilize the specified BACT Technology as given in the following tables:  [Not Verbatim]: Please see table 4.1.7(d)(1) and 4.1.7(d)(2) in the permit for Rockfon Line Emission Limits	Comply with emission limitations and utilize specified BACT Technology	✓ Yes  □ No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
		e. As the annual emission limits of RFN-E3, RFN-E4, RFN-E6, and RFN-E9 listed under Table 4.1.7(d) are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for these units.				

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Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
RFNE1, RFNE2, RFNE3, RFNE4, RFNE5, RFNE6, RFNE7, RFNE8, RFNE9	Requirements: 4.1.7(f)	f. 45CSR7 The Rockfon Line shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:  (1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.  [45CSR§7-3.1]  (2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.  [45CSR§7-3.2]	Comply with applicable requirements of 45CSR7; Conduct visible emission monitoring in accordance with the procedures outlined under 45CSR7A when designated by the Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
		<ul> <li>(3) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.</li> <li>[45CSR§7-4.1]</li> <li>(4) Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in Excess of the quantity given in Table 45-7B found at the end of this rule.</li> <li>[45CSR§7-4.2]</li> </ul>				
	Source-Specific	Fuel Burning Units	Comply with maximum design heat input and only	<b>✓</b> Yes		1st Half (January 1st through June 30th)
RFN10	Requirements: 4.1.8(a)-(c)	The Fuel Burning Units, identified as IMF24, CM03, CM04, and RFN10, shall meet the following requirements:	combust PNG in Fuel Burning Units; Comply with emission limitations			1st Half (January 1st unrough June 30th)
	(6)	<ul> <li>a. The units shall only combust PNG and each not exceed an aggregate MDHI (of all burners) of 5.1 mmBtu/hr (1,500 kW) for each permitted emission:</li> <li>b. The units shall not exceed the emission limits given in the following table: [Not Verbatim]: Please see table 4.1.8(b) in the permit for Per-Fuel Burning Unit Emission Limits</li> <li>c. As all the annual emissions of the units listed under Table 4.1.8(b) are based on 8,760 hours of operation, there is no annual limit on hours</li> </ul>	CHISSION INITIATIONS	□ No		2nd Half (July 1st through December 31st)
		of operation or natural gas combusted on an annual basis for those units; and				
IMF24, CM03, CM04, RFN10	Source-Specific Requirements: 4.1.8(d)	d. 45CSR2  No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.  [40CSR§2-3.1]	Upon request by the Secretary, determine compliance with the visible emission requirements of 40CSR§2-3.1 in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
TK-DF, TK-UO, TK-TO1, TK-TO2, TK-TO3, TK- TO4, TK-DO, TK-RS1 through TK-RS7, TK-CA, TK-AD, TK-BM, TK-BC, TK-BD, TK-BS1 through TK-BS3, TK-DOD, TK- PD, TK-PDD	1	Storage Tanks Use of the volatile organic liquid (VOL) storage tanks shall be in accordance with the following:  a. Tank size shall be limited as specified under Table 1.0 of this permit;  b. The aggregate emissions of VOCs from all storage shall not exceed a BACT Limit of 0.19 tons/year (0.17 tonnes/yr); and  c. Material stored shall be as specified and the aggregate annual storage tank throughputs shall not exceed those given in the following table:  [Not Verbatim]: Please see table 4.1.9(c) in the permit for Storage Tank Throughput Limits  d. For BACT purposes, the permittee shall utilize good operating practices in the operation of the storage tanks. Good operating practices shall mean maintaining and operating the storage tanks according to manufacturers recommendations and regularly inspecting the tanks for areas of disrepair or failure that would allow the escape of VOC-containing vapors.	Comply with tank size limitations as specified in permit; comply with aggregate VOC emission limitation; comply with aggregate annual storage tank throughputs as specified in permit; utilize good operating practices in the operation of storage tanks	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
EFP1	Source-Specific	Emergency Fire Pump Engine	Comply with maximum design capacity and only		One - See Cover Letter	_
	Requirements: 4.1.10(a)-(b)	The Emergency Fire Pump Engine, identified as EFP1, shall meet the following requirements:  a. The unit shall not exceed 197 horsepower (150 kW), shall be fired only with Ultra-Low Sulfur Diesel (with a maximum sulfur content not to exceed 0.0015%), and shall not operate in excess of 100 hours per year nor 0.5 hours in any 24-hour period during times not defined as emergencies;	fire with ULSD; comply with maximum annual and daily hours of operation in times not defined as emergencies; comply with emission limitations	Yes  ✓ No		1st Half (January 1st through June 30th)  2nd Half (July 1st through December 31st)
		b. The maximum emissions from the Emergency Fire Pump Engine shall not exceed the limits given in the following table: [Not Verbatim]: Please see table 4.1.10(b) in the permit for Emergency Fire Pump Emission Limits				
EFP1	Source-Specific	c. 40 CFR 60, Subpart IIII	Comply with emission limitations given in	✓ Yes		Internal Construction of the Construction of t
	Requirements: 4.1.10(c)	The Emergency Fire Pump Engine shall meet all applicable requirements under 40 CFR 60, Subpart IIII including the following: (1) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.  [40 CFR §60.4205(c)] (2) As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines:  [Not Verbatim]: Please see table 4 to Subpart IIII of Part 60 in the permit for Emission Standards for Stationary Fire Pump Engines	40CFR60, Subpart IIII	No No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
EFP1	Source-Specific	d. 40 CFR 63, Subpart ZZZZ	Compliance with 40CFR63, Subpart ZZZZ is			
		An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.  [40 CFR §63.6590(c)]	demonstrated by meeting the requirements of 40CFR60, Subpart IIII	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
DI	Source-Specific Requirements: 4.1.11(a)	a. Dry Ice Cleaning The maximum input design capacity of the dry ice production unit (DI) shall not exceed 4.37 tons/day (3.97 tonne/day), and the emissions of CO <sub>2</sub> from the use dry ice cleaning shall not exceed (BACT limit) 363.76 PPH (165 kg/hr) or 1,594 TPY (1,446 tonne/year).	Comply with maximum input design capacity and $\mathrm{CO}_2$ emission limitation	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF02, HE02	Source-Specific Requirements: 4.1.11(b)	b. Cooling Towers The Cooling Towers shall operate in accordance with the following requirements:  (1) The Cooling Tower shall use the control device specified under Section 1.0 at all times in operation and not exceed the specified maximum design and operational limits in the following table:  [Not Verbatim]: Please see table 4.1.11(b)(1) in the permit for Cooling Tower Specifications  (2) The maximum emissions from the Cooling Towers shall not exceed the limits given in the following table:  [Not Verbatim]: Please see table 4.1.11(b)(2) in the permit for Cooling Tower Emission Limits	Use control devices specified in permit; comply with maximum design and operational limits specified in permit; comply with emission limitations	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
P_MARK	Source-Specific Requirements: 4.1.11(c)	c. Product Marking The Product Marking Operations, identified as P_MARK, shall operate in accordance with the following requirements:  (1) The MDHI of the burners used with the branding wheels used in Product Marking shall not exceed 0.40 mmBtu/hr (120 kW) and shall only be fired with PNG. Combustion exhaust from the burners shall not exceed the following emissions:  [Not Verbatim]: Please see table 4.1.11(c)(1) in the permit for Product Marking Burners Combustion Exhaust Emission Limits  (2) As all the annual emissions listed under Table 4.1.11(c)(1) are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for the unit; and  (3) The BACT Technology for the use of ink and cleaners during Product Marking Operations is the utilization of Good Work Practices.  "Good Work Practices" shall mean storing VOC containing materials in closed tanks or containers, cleaning up spills, and minimizing cleaning with VOC-containing cleaners. VOC emissions from the use of ink and cleaners during Product Marking operations shall not exceed 2.37 tons/month (2 .15 tonne/month) and a BACT limit of 9.49 TPY (8.61 tonne/yr) and no HAP-containing inks or cleaners shall be used during Product Marking Operations.		Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.1.12(a)	a. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.  [45CSR§13-5.11.]	Operate and maintain air pollution control equipment and associated monitoring equipment according to good air pollution control practices	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01	Source-Specific Requirements: 4.1.12(b)	b. Inherent SNCR De-NOx System The permittee shall design and operate the Melting Furnace so as to promote the inherent removal of NOx from the exhaust gas stream. The permittee shall maintain a proper temperature profile for NOx removal and inject aqueous ammonia as necessary to facilitate the SNCR process. Compliance with 4.1.12(b) shall be determined by showing compliance with the NOx emission limits given under Table 4.1.4(a) using the CEMS as required under 4.2.6.	Demonstrate compliance by showing compliance with NOx emission limit using CEMS	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01	Source-Specific Requirements: 4.1.12(c)	c. Sorbent Injection The permittee shall utilize sorbent injection in conjunction with Baghouse IMF-01 so as to reduce the emissions of SO <sub>2</sub> , H <sub>2</sub> SO <sub>4</sub> , HF, and HCl from the Melting Furnace. Compliance with 4.1.12(c) shall be determined by showing compliance with the SO <sub>2</sub> emission limits given under Table 4.1.4(a) using the CEMS as required under 4.2.6.	Demonstrate compliance by showing compliance with SO <sub>2</sub> emission limit using CEMS	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01	Source-Specific Requirements: 4.1.12(d)	d. Baghouse IMF01-BH Use of Baghouse IMF01-BH shall be in accordance with the following requirements:  (1) The permittee shall monitor the differential pressure drop of IMF01-BH so as to ensure proper continuous operation of the baghouse. The monitoring system shall include an alarm to notify the control room if the differential pressure drop indicates abnormal performance of the unit. The appropriate alarm set-point(s) shall be determined as given under 4.1.12(g).  (2) 40 CFR 63, Subpart DDD How do I comply with the particulate matter standards for existing, new, and reconstructed cupolas? To comply with the PM standards, you must meet all of the following:  [40 CFR §63.1181]  (i) Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric tilter.  [40 CFR §63.1181(a)]  (ii) Do a performance test as specified in §63.1188 of this subpart and show compliance with the PM emission limits while the bag leak detection system is installed, operational, and properly adjusted.  [40 CFR §63.1181(b)]  (iii) Begin corrective actions specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart within one hour after the alarm on a bag leak detection system sounds. Complete the corrective actions in a timely manner.  [40 CFR §63.1181(c)]  (iv) Develop and implement a written QIP consistent with compliance assurance monitoring requirements of 40 CFR 64.8(b) through (d) when the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period.  [40 CFR §63.1181(d)]	Monitor differential pressure drop of IMF01-BH using monitoring system with appropriate alarm setpoints; Comply with particulate matter standards of 40 CFR 63, Subpart DDD for cupolas	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
GUT-EX, SPN, CO-HD, CO, CS		e. Wet Electrostatic Precipitator (WESP) The operation of the WESP shall be in accordance with the following requirements:  (1) The permittee shall utilize a WESP, identified as HE01, so as to reduce the particulate matter emissions from the Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, the Afterburner, and the Cooling Section at all times Melting, Spinning, Curing and Cooling operations are ongoing; and  (2) The permittee shall monitor the secondary voltage and secondary amperage range of the WESP for optimum mitigation of particulate matter emissions from the sources listed under 4.1.12(e)(l). The monitoring system shall include an alarm to notify the control room if the secondary voltage or amperage indicates abnormal performance of the unit. The appropriate alarm set-point(s) shall be determined as given under 4.1.12(g).	Utilize WESP to reduce particulate matter emissions; Monitor the secondary voltage and secondary amperage of range of the WESP using monitoring system with appropriate alarm set-points	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
СО	Source-Specific Requirements: 4.1.12(f)(1)	f. Curing Oven Afterburner The Curing Oven Afterburner, CO-AB, shall operate according to the following requirements:  (I) The Curing Oven Afterburner shall not exceed a burner capacity of 6.83 mmBtu/hr (2,000 kW) and shall be in operation at all times when the Curing Oven is in operation and is venting VOC-containing vapors;	Comply with maximum burner capacity; operate at all times Curing Oven is in operation and venting VOC-containing vapors	☐ Yes ☑ No	One - See Cover Letter	1st Half (January 1st through June 30th)  2nd Half (July 1st through December 31st)
СО		(2) 45CSR6 The Curing Oven Afterburner is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:  (i) The permittee shall not cause, suffer, allow or permit particulate matter to be discharged from the flares into the open air in excess of the quantity determined by use of the following formula:  Emissions (lb/hr)= F x Incinerator Capacity (tons/hr)  Where, the factor, F, is as indicated in Table I below:  Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions  Incinerator Capacity Factor F  A. Less than 15,000 lbs/hr 5.43  B. 15,000 lbs/hr or greater 2.72  [45CSR86-4.1]  (ii) No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  [45CSR8 §4.3]  (iii) The provisions of paragraph (i) shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregatin no more than eight (8) minutes per start-up.  [45CSR6 §4.4]  (iv) No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.  [45CSR6 §4.5]  (v) Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  [45CSR6 §4.6]  (vi) Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods notto exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program habeen submitted by the owner or operator and approved by the Director.		Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

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Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
СО	Source-Specific Requirements: 4.1.12(f)(3)	operations? To comply with the formaldehyde, phenol, and methanol standards, you must meet all of the following: [40 CFR §63.1183]  (A) Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.	Comply with the formaldehyde, phenol, and methanol standards by meeting the requirements in 40 CFR §63.1183.  RAN submitted Mineral Wool MACT Semiannual Report on January 31st, 2022 detailing deviation for Curing Oven Afterburner temperature	☐ Yes ✓ No	One - See Cover Letter	☐ 1st Half (January 1st through June 30th)  ✓ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.1.12(g)	g. Where statutory requirements (MACT, NSPS) do not specify such points, the determination of appropriate alarm set-points under this section shall be based on data obtained from performance testing, manufacturing recommendations, or operational experience. The permittee shall maintain on-site, and update as necessary, a certified report listing the set-points and the basis for their selection. Any changes to the set-points shall be accompanied by the date of the change and reason for the change. The permittee shall, to the extent reasonably possible, operate		Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.1.13	Stack Parameters The emission point stack parameters (Inner Diameter, Emission Point Elevation, and UTM Coordinates) of each source identified under the Emission Units Table 1.0 shall be in accordance with the specifications as given on the Emission Points Data Sheet in the most updated version of Permit Application R14-0037.	Stack parameters shall be as specified in most updated version of Permit Application R14-0037	☐ Yes ✓ No	One - See Cover Letter	1st Half (January 1st through June 30th)  2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.1.14	General Rule Applicability The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR2, 45CSR6, 45CSR7, 45CSR10, 40 CFR 60, Subparts OOO and IIII, and 40 CFR 63, Subparts DDD, JJJJ, ZZZZ, and DDDDD. Any final revisions made to the above rules will, where applicable, supercede those specifically cited in this permit.	Informational	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.1	Maximum Design Capacity Compliance Compliance with the maximum design capacity limitations as given under 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate that does not exceed the specified value under 4.1.	Maintain documentation demonstrating that maximum design capacity limitations are not exceeded	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.2	Maximum Design Heat Input Compliance Compliance with the various combustion unit MDHI limitations as given under 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under 4.1.	Maintain documentation demonstrating that combustion unit MDHI limitations are not exceeded	✓ Yes		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.3	Material/Production Throughputs To determine continuous compliance with maximum production, throughputs, and combustion limits given under in 4.1 of the permit, the permittee shall monitor and record the following:  Table 4.2.3: Facility Quantities Monitored/Recorded  Quantity Monitored/Recorded Emission Unit(s) Measured Units  Portable Melt Crushing Portable Melt Crusher Hours of Operation/year  Emergency Fire Pump Hours of Operation(1) EFP1 Hours of Operation/Year  Storage Tank Thoughputs Various Gallons/year  (1) Strictly for the purposes of compliance with 4.1.10(a), only non-emergency hours of operation are required to be monitored. Subpart IIII, however, requires monitoring of all hours of operation.	Monitor and record Portable Melt Crushing annual hours of operation, Emergency Fire Pump hours of operation, and Storage Tank annual throughputs	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Cert	tification			
Permittee: ROXUL USA,	Inc. dba ROCKWOOL		Facility: RAN Facility		Permit Number: R14-00	037
		For the reporting period beginning 01/01/2021 and e				
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
Total Facility	Source-Specific Requirements: 4.2.4	Baghouse/Filter Vents To determine continuous compliance with the filter/baghouse emission limits given under Section 4.1 of the permit, the permittee shall maintain and operate the control devices according to the requirements given under 4.1.12(a). The permittee shall keep a record of all significant maintenance or repair performed on these control devices (changing out bags, replacing filter material, etc.).	Maintain and operate control devices as required by permit; maintain records of significant maintenance or repairs performed	Yes No	-	☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF05	Source-Specific Requirements: 4.2.5	Coal Fluidized Bed Dryer  To determine continuous compliance with the maximum temperature requirement given under Table 4.1.3(d)- footnote (1), the permittee shall install and maintain instrumentation in the Coal Fluidized Bed Dryer so as to monitor and record the temperature in the drying zone of the dryer.	Install and maintain instrumentation in the Coal Fluidized Bed Dryer to monitor and record the temperature in the drying zone	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01	Source-Specific Requirements: 4.2.6	Melting Furnace CEMS (IMF01) Within 60 days after achieving the maximum design mineral wool production rate at which the facility will be operated, but not later than 180 days after initial startup, the permittee shall, to show continuous compliance with the CO, NOx, and SO <sub>2</sub> emission limits as given under Table 4.1.4(a), install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of CO, NOx, and SO <sub>2</sub> from IMF01. The CEMS shall be installed, maintained and operated according to the manufacturers design, specifications, and recommendations, of which a protocol shall be developed by the permittee and approved by the Director prior to operation. The CEMS shall meet the applicable performance specifications required by 40 Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR 60.13. In lieu of the requirements of 40 CFR Part 60, Appendix F, 5.1.1, 5.1.3, and 5.1.4, the permittee may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on the CEMS at least once every three (3) years. The permittee shall conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed. Data recorded by the CEMS shall be kept for a period not less than three (3) years and shall be made available to the Director or his/her representative upon request.	Install and operate CEMS within 60 days after achieving design mineral wool production rate but not later than 180 days after startup; develop CEMS protocol to be approved by the Director prior to operation; comply with applicable performance specifications required by 40 Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR 60.13; conduct RAA or RATA at least once every 3 years; conduct CGA each calendar quarter during which a RAA or a RATA is not performed; maintain data recorded by CEMS for at least 3 years	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
CM12, CM13	Source-Specific Requirements: 4.2.7	Fleece Application Station To determine continuous compliance with the VOC/HAP emission limits and the low-VOC requirement given under 4.1.6(a) and (b), the permittee shall monitor and record the following:  a. The monthly and twelve-month rolling total of the amount (in tons) of VOCs/HAPs used in the fleece application process. The amount shall be based on actual material properties (VOC/HAP contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs/HAPs used in the fleece application process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets; and  b. The average monthly as-applied VOC/HAP content (in lb-VOC/lb-coating and lb-HAP/lb coating) as based on the procedures under 40 CFR 63, Subpart JJJJ, Section §63.3370(a).		Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
RFNE1, RFNE2, RFNE3, RFNE4, RFNE5, RFNE6, RFNE7, RFNE8, RFNE9		Rockfon Line Coatings/Glue Usage To determine continuous compliance with the VOC emission limit and the low-VOC BACT requirements given under 4.1.7(a) and (b), the permittee shall monitor and record the monthly and twelve-month rolling total of the amount (in tons) of VOCs used in the Rockfon coating and gluing process. The amount shall be based on actual material properties (VOC contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs used in the Rockfon coating and gluing process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets.	Monitor and record the monthly and twelve-month rolling total of the amount of VOCs used	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
EFP1	Source-Specific Requirements: 4.2.9	Ultra Low Sulfur Fuel For the purposes of demonstrating continuing compliance with the maximum sulfur content limit under 4.1.10(a), the permittee shall, at a minimum of once per calendar year, obtain from the fuel oil supplier a certification of the sulfur content of the fuel combusted in the Emergency Fire Pump Engine. An alternative means of determining compliance with 4.2.10. will be subject to prior approval from the Director.	Obtain annual certification from the fuel oil supplier of the sulfur content from the fuel combusted in the Emergency Fire Pump Engine	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF02, HE02	Source-Specific Requirements: 4.2.10	Cooling Tower For the purposes of demonstrating initial and continuing compliance with the operational limits set forth in Table 4.1.11 (b)(1), the permittee shall, for both cooling towers, within 180 days of startup, take an initial grab sample of the cooling tower circulating water and analyze such to determine the total solids content of the cooling tower circulating water. Thereafter, the permittee shall test for solids content on an annual basis (with no more than 14 months between tests).	Take initial grab sample of cooling tower circulating water and analyze to determine total solids content within 180 days of startup; test for solids content on an annual basis with no more than 14 months between tests	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
P_MARK	Source-Specific Requirements: 4.2.11	Product Marking To detennine continuous compliance with the Product Marking (P_MARK) VOC emission limits and given under 4.1.11 (c)(3), the permittee shall monitor and record the monthly and twelve-month rolling total of the amount (in tons) of VOCs used in the Product Marking process. The amount shall be based on actual material properties (VOC contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs used in the Product Marking process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets.	Monitor and record the monthly and twelve-month rolling total of the amount of VOCs used	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Cert	tification			
Permittee: ROXUL USA,	Inc. dba ROCKWOOL	1	Facility: RAN Facility		Permit Number: R14-00	037
		For the reporting period beginning 01/01/2021 and e				
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
IMF01, GUT-EX, SPN, CO-HD, CO, CS	Source-Specific Requirements: 4.2.12	Control Device Monitoring The permittee shall install, maintain, and operate instrumentation to continuously monitor and record the control device parameters as required under 4.1.12 of this permit including, at a minimum, the following:  Table 4.2.12: Control Device Parameters Monitored/Recorded  Control Device Control Device ID Parameter(s)  Melting Furnace Baghouse IMF01-BH Pressure Drop  WESP WESP Secondary Voltage, Secondary Amperage  Curing Oven Afterburner CO-AB Firebox Temperature <sup>(1)</sup> (1) Pursuant to 40 CFR 63, Subpart DDD, §63.1182.	Install, maintain, and operate instrumentation to continuously monitor and record IMF01-BH Pressure Drop, WESP Secondary Voltage and Secondary Amperage, and CO-AB Firebox Temperature	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF24, CM03, CM04, RFN10	Source-Specific Requirements: 4.2.13(a)		measurements from continuous opacity monitoring	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
СО	Source-Specific Requirements: 4.2.13(b)	b. 45CSR6  Compliance with the afterburner opacity requirements given under 4.1.12(f)(2)(i) and (ii) shall be based on the compliance demonstrations required for emission point HE01 as given under 4.2.14(c) and (e);	Demonstrate compliance as required for emission point HE01	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
B170, Rd_RM, Rd_CM, Rd_FP, IMF03, IMF08, IMF09, IMF25, IMF21, CM10, CM11, CM08, CM09, CE01, CE02, IMF06, IMF04, IMF13, IMF05, IMF01, GUT-EX CO-HD, CO, SPN, RFNE1, RFNE2, RFNE3 RFNE4, RFNE5, RFNE6 RFNE7, RFNE8, RFNE9		c. 45CSR7 At such reasonable time(s) as the Secretary may designate, compliance with the visible emission requirements of 4.1.2(i), 4.1.3(e), 4.1.4(b), 4.1.5(b), and 4.1.7(f) shall be determined in accordance with the procedures outlined under 45CSR7A;	Conduct visible emission monitoring in accordance with the procedures outlined under 45CSR7A when designated by the Secretary	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
RM_REJ, S_REJ, IMF07 IMF10, IMF11, IMF12, IMF14, IMF15, IMF16, IMF17, IMF18		given under 40 CFR 60, Subpart OOO, Sections §60.674 through §60.676;	Comply with applicable requirements of 40CFR60, Subpart OOO; Conduct initial and 1/5 year Method 9 testing; submit applicable notifications and testing results; comply with recordkeeping and reporting requirements	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.13(e)	conduct visible emission checks and/or opacity monitoring and recordkeeping for Emission Points IMF01, HE01, CE01, and IMF05 in accordance with the following:  (i) The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of	Conduct visible emission checks and/or opacity monitoring and recordkeeping for IMF01, HE01, CE01, and IMF05 at least once per calendar month with a maximum of 45 days between readings; perform Method 9 readings at a source within 72 hours of a Method 22 emission check where visible emissions are present; if Method 22 observations are reduced to quarterly and visible emissions are observed, return the observation frequency to monthly	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Cert	ification			
Permittee: ROXUL USA,	Inc. dba ROCKWOOL	<del>-</del>	Facility: RAN Facility		Permit Number: R14-00	037
		For the reporting period beginning 01/01/2021 and earlier than the reporting 01/01/2021 and ea	nding 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported
Total Facility	Source-Specific Requirements: 4.2.13(f)	For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.14 documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent; and	Maintain records of the visible emission opacity tests and checks with all required monitoring data	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.13(g)	g. Any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.	Submit report of any deviation of the allowable visible emission requirements discovered during a Method 9 observation to the Director of the DAQ within 10 calendar days	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.14	Baghouse/Fabric Filter Compliance Demonstrations Unless specifically requested under 4.3.1. or listed in Table 4.3.2., compliance with all baghouse and fabric filter mass emission limits that have BACT outlet grain loading limits shall be based on vendor information or vendor guarantees that show the maximum outlet grain loading emissions from the baghouse/fabric filter is in compliance with the specific limit.	Maintain documentation from vendor showing that BACT outlet grain loading limits are met	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.2.15	Emission Point Map The permittee shall prepare and maintain an emission point map of the facility. This map shall consist of a diagram of the location and identification of all emission points at the facility that vent to ambient air. A legend shall be prepared with the map that identifies the emission point type and source(s) contributing to that emission point. This map shall be prepared within 180 days of startup and thereafter be updated as necessary to reflect current facility operations. The map(s) shall be retained on-site and be made available to the Director or his/her duly authorized representative upon request	Prepare emission point map within 180 days of startup; update map as necessary; retain map on-site and make available to the Director or autorized representative upon request	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01	Source-Specific Requirements: 4.2.16	To determine compliance with the annual $CO_2$ e limit given under Table 4.1.5(a), the permittee shall monitor and record the information given under 4.2.16(a) and (b). The permittee shall then use this information to calculate $N_2O$ emissions (based on an emission factor of 28.05 lb-	Monitor and record the annual amount based on a rolling 12 month period of purchased resin based on invoices; monitor and record the solid content in PUF	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.3.1	At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.	Conduct testing when designated by the Secretary	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01, GUT-EX, SPN, CO-HD, CO, CS, RFNE8, CE01, CM10	Source-Specific Requirements: 4.3.2	Emissions Point Performance Testing Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:  [Not Verbatim]: Please see table 4.3.2 in the permit for Performance Testing Requirements	Conduct initial performance tests on the units in Table 4.3.2 of the permit within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01, GUT-EX, SPN, CO-HD, CO, CS, RFNE8, CE01, CM10	Source-Specific Requirements: 4.3.3	With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:  [Not Verbatim]: Please see table 4.3.3 in the permit for Performance Testing Schedule	After the initial performance test, conduct additional performance testing according to the Performance Testing Schedule in the permit	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
IMF01	Source-Specific Requirements: 4.3.4	Performance testing for pollutants monitored by CEMS (CO, NOx, and SO <sub>2</sub> emitted from the Melting Furnace) are not subject to the performance testing schedule given under Table 4.3.4 and any performance testing shall, unless at such other reasonable time(s) as the Secretary may designate, be conducted on a schedule consistent with the required RATA testing.	Conduct performance testing on a schedule consistent with the required RATA testing, unless otherwise designated by the Secretary	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.3.5	[ · · · · · · · · · · · · · · · · · · ·	Use the test method specified in the permit for performance testing unless granted approval by the Director to use an alternative test method	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
RM_REJ, S_REJ, IMF07, IMF10, IMF11, IMF12, IMF14, IMF15, IMF16, IMF17, IMF18	Source-Specific Requirements: 4.3.6	40 CFR 60, Subpart OOO The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 60, Subpart A, Section §60.8 and Subpart OOO, Section §60.675.	Comply with applicable Performace Testing requirements as given under 40 CFR 60, Subpart A, Section §60.8 and Subpart OOO, Section §60.675	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)

		Form A - Annual Compliance Cer	rtification			
Permittee: ROXUL USA	, Inc. dba ROCKWOOL	•	Facility: RAN Facility		Permit Number: R14-0	037
		For the reporting period beginning 01/01/2021 and	ending 12/31/2021			
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	Method or Means of Determining Compliance Status <sup>1</sup>	Was the source in compliance for the reporting period?	If no, how many deviations occurred during the reporting period?	If deviations occurred, indicate when deviations were reported?
IMF01, GUT-EX, SPN, CO-HD, CO, CS	Source-Specific Requirements: 4.3.7	40 CFR 63, Subpart DDD  The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 63, Subpart DDD, Sections §63.1188 through §63.1190.	Meet performance test requirements as given in §63.1188, use test methods given in §63.1189, and determine compliance as outlined in §63.1190.	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.4.1	Record of Monitoring. The permittee shall keep records of monitoring information that include the following:  a. The date, place as defined in this permit and time of sampling or measurements;  b. The date(s) analyses were performed;  c. The company or entity that performed the analyses;  d. The analytical techniques or methods used;  e. The results of the analyses; and  f. The operating conditions existing at the time of sampling or measurement.	Maintain all records of monitoring information	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.4.2	Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.	Maintain all records of control equipment inspection and maintenance	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.4.3	Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:  a. The equipment involved.  b. Steps taken to minimize emissions during the event.  c. The duration of the event.  d. The estimated increase in emissions during the event.  For each such case associated with an equipment malfunction, the additional information shall also be recorded:  e. The cause of the malfunction.  f. Steps taken to correct the malfunction.  g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.	Maintain all records of malfunctions of control equipment	Yes No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)
Total Facility	Source-Specific Requirements: 4.5.1	The permittee shall submit the following infonnation to the DAQ according to the specified schedules:  a. The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports; and  b. The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3 the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes on non compliance contained therein.	c )	✓ Yes  No		☐ 1st Half (January 1st through June 30th) ☐ 2nd Half (July 1st through December 31st)



#### Semiannual Monitoring Report - WVDAQ Facility ID 037-00108

1 message

Grant Morgan < Grant. Morgan@erm.com>

Tue, Mar 15, 2022 at 9:28 AM

To: "DEPAirQualityReports@wv.gov" <DEPAirQualityReports@wv.gov>
Cc: Ryan Durrill <ryan.durrill@rockwool.com>, Stacey Phillips <stacey.phillips@rockwool.com>, Jeff Twaddle <Jeff.Twaddle@erm.com>

Hello,

On behalf of Roxul USA, Inc. (dba ROCKWOOL), please find the attached Semiannual Monitoring Report as required by Permit No. R14-0037.

As DEP commences review, please reach out with questions and comments.

Thank you,

Grant Morgan, P.E. (WV)

ERM | 971 WV-34 | Hurricane, WV | 25526

mobile: 304.590.6160

mail: grant.morgan@erm.com | www.erm.com



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March 15, 2022

Laura Crowder, Director Division of Air Quality West Virginia Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304-2345

Re: Semiannual Monitoring Report ROCKWOOL USA, Inc., Kearneysville, WV (AIR Permit No. R14-0037)

Dear Ms. Crowder:

The ROCKWOOL USA, Inc. (ROCKWOOL) facility submits the enclosed Semiannual Monitoring Report for the period from July 1, 2021 until December 31, 2021.

The enclosed Semiannual Monitoring Report makes note of three (3) deviations for monitoring data, each of which has previously been communicated to the West Virginia Department of Environmental Protection (WVDEP) in previous compliance submittals. ROCKWOOL is preparing to submit an updated R14 permit application (at the time of Title V submittal) that will update the permit to reflect as-constructed conditions at the RAN site. The permitting action will result in a net decrease in emissions. RAN currently operates and will continue to operate in compliance with Federal and State requirements and site-wide emissions are below the limits established in R14-0037.

If you have any questions or comments regarding this submittal or require additional information, please contact our SHEQ Manager, Ryan Durrill, at (304) 830-6464 or via email at ryan.durrill@ROCKWOOL.com.



Sincerely,

Mark Graves

Director of Operations ROCKWOOL USA, Inc.

Cc: Attn: Director, Air & Radiation Division

United States Environmental Protection Agency, Region 3 (Mid-Atlantic)

1650 Arch Street

Philadelphia, PA 19103-2029

Ryan Durrill - ROCKWOOL USA, Inc.

Jeff Twaddle - Environmental Resources Management, Inc.

## WV Division of Air Quality

601 57<sup>th</sup> Street SE Charleston, WV 25304 Telephone Number: (304) 926-0475

Fax Number: (304) 926-0478

## TITLE V OPERATING PERMIT SEMI-ANNUAL MONITORING REPORT

Name of Permittee: Roxul USA, Inc. dba ROCKWOOL	Name of Facility: RAN Mineral Wool Production Facility					
Permit Number: R30-	AFS Plant ID Number: 03-54-037-00108					
Mailing Address:  665 Northport Avenue  Kearneysville, WV 25430	Contact Person: Ryan Durrill  Title: SHEQ Manager  Telephone: (304) 830-6464					
For the reporting period beginning $\ 07 \ / \ 01 \ / 2021$ and ending $\ 12 \ / \ 31 \ / 2021$						
Based upon the specific test methods, monitoring, record keeping and/or reporting required under the permittee's Title V Operating Permit and any other information reasonably available, I, the undersigned, hereby certify for the reporting period stated above that based on information and belief formed after reasonable inquiry, the statements and information in this document and attachments are true, accurate, and complete. <sup>1</sup>						
Responsible	e Official <sup>2</sup>					
Name: Mark Graves	Title: Director of Operations					
Signature:	Date: 03/14/2022					
Note: Please check all required attachments included with	this Semi-Annual Monitoring Report.					
Form B - Semi-Annual Monitoring Report <sup>3</sup>	☑ Form C - Deviation Report <sup>3</sup>					
Please note that the West Virginia Code states that any person who knowingly misrepresents any material fact in an application, record, report, plan or other document filed or required to be maintained is guilty of a misdemeanor and may be subject to fines and/or imprisonment in accordance with W.VA. Code §22-5-6(b).						
<sup>2</sup> A Responsible Official as defined by 45CSR§30-2.38.1	must sign this certification.					
Submit signed electronic copy by e-mail to: DEPAirQualityReports@wv.gov						

		Form B - Semi-Annual Monitoring Report		
Permittee: ROXUL USA, I	nc. dba ROCKWOOL	Facility: RAN Facility	Permit Number: R14-0037	
		For the reporting period beginning 01/01/2021 and ending 12/31/2021		
Emission Unit ID	Condition Number of Permit Requirement	Monitoring, Data, or Analysis Required by the Permit	Separate Monitoring Report?	Date of Separate Report Submittal or Attachment ID
Total Facility	Source-Specific Requirements: 4.2.3	Material/Production Throughputs To determine continuous compliance with maximum production, throughputs, and combustion limits given under in 4.1 of the permit, the permittee shall monitor and record the following: Table 4.2.3: Facility Quantities Monitored/Recorded	✓ Yes	Attachment ID:
		Quantity Monitored/Recorded         Emission Unit(s)         Measured Units           Portable Melt Crushing         Portable Melt Crusher         Hours of Operation/year           Emergency Fire Pump Hours of Operation (1)         EFP1         Hours of Operation/Year           Storage Tank Throughputs         Various         Gallons/year           (1) Strictly for the purposes of compliance with 4.1.10(a), only non-emergency hours of operation are required to be monitored. Subpart IIII, however, requires monitoring of all hours of operation.		
IMF05	Source-Specific Requirements: 4.2.5	Coal Fluidized Bed Dryer  To determine continuous compliance with the maximum temperature requirement given under Table 4.1.3(d)- footnote (1), the permittee shall install and maintain instrumentation in the Coal Fluidized Bed	Yes ✓ No	/ / / Attachment ID:
IMF01	Source-Specific Requirements: 4.2.6	Dryer so as to monitor and record the temperature in the drying zone of the dryer.  Melting Furnace CEMS (IMF01) Within 60 days after achieving the maximum design mineral wool production rate at which the facility will be operated, but not later than 180 days after initial startup, the permittee shall, to show continuous compliance with the CO, NOx, and SO <sub>2</sub> emission limits as given under Table 4.1.4(a), install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of CO, NOx, and SO <sub>2</sub>	✓ Yes  No	RATA Report - 1/4/2022 Attachment ID:
		from IMF01. The CEMS shall be installed, maintained and operated according to the manufacturers design, specifications, and recommendations, of which a protocol shall be developed by the permittee and approved by the Director prior to operation. The CEMS shall meet the applicable performance specifications required by 40 Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR 60.13. In lieu of the requirements of 40 CFR Part 60, Appendix F, 5.1.1, 5.1.3, and 5.1.4, the permittee may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on the CEMS at least once every three (3) years. The permittee shall conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed. Data recorded by the CEMS shall be kept for a period not less than three (3) years and shall be made available to the Director or his/her representative upon request.		
CM12, CM13	Source-Specific Requirements: 4.2.7	Fleece Application Station  To determine continuous compliance with the VOC/HAP emission limits and the low-VOC requirement given under 4.1.6(a) and (b), the permittee shall monitor and record the following:	Yes  No	Attachment ID:
		a. The monthly and twelve-month rolling total of the amount (in tons) of VOCs/HAPs used in the fleece application process. The amount shall be based on actual material properties (VOC/HAP contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs/HAPs used in the fleece application process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets; and		
		b. The average monthly as-applied VOC/IAP content (in lb-VOC/Ib-coating and lb-HAP/Ib coating) as based on the procedures under 40 CFR 63, Subpart JJJJ, Section §63.3370(a).		
RFNE1, RFNE2, RFNE3, RFNE4, RFNE5, RFNE6, RFNE7, RFNE8, RFNE9	Source-Specific Requirements: 4.2.8	Rockfon Line Coatings/Glue Usage To determine continuous compliance with the VOC emission limit and the low-VOC BACT requirements given under 4.1.7(a) and (b), the permittee shall monitor and record the monthly and twelve-month rolling total of the amount (in tons) of VOCs used in the Rockfon coating and gluing process. The amount shall be based on actual material properties (VOC contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs used in the Rockfon coating and gluing process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets.	□Yes ▼ No	Attachment ID:
EFP1	Source-Specific Requirements: 4.2.9	Ultra Low Sulfur Fuel For the purposes of demonstrating continuing compliance with the maximum sulfur content limit under 4.1.10(a), the permittee shall, at a minimum of once per calendar year, obtain from the fuel oil supplier a certification of the sulfur content of the fuel combusted in the Emergency Fire Pump Engine. An alternative means of determining compliance with 4.2.10, will be subject to prior approval from the Director.	☐ Yes  ✓ No	Attachment ID:
IMF02, HE02	Source-Specific Requirements: 4.2.10	Cooling Tower  For the purposes of demonstrating initial and continuing compliance with the operational limits set forth in Table 4.1.11 (b)(1), the permittee shall, for both cooling towers, within 180 days of startup, take an initial grab sample of the cooling tower circulating water and analyze such to determine the total solids content of the cooling tower circulating water. Thereafter, the permittee shall test for solids content on an annual basis (with no more than 14 months between tests).	☐ Yes 🔽 No	/ / / Attachment ID:

		Form B - Semi-Annual Monitoring Report		
Permittee: ROXUL USA, I	Inc. dba ROCKWOOL	Facility: RAN Facility	Permit Number: R14-0037	
,		For the reporting period beginning 01/01/2021 and ending 12/31/2021		
Emission Unit ID	Condition Number of Permit Requirement	Monitoring, Data, or Analysis Required by the Permit	Separate Monitoring Report?	Date of Separate Report Submittal or Attachment ID
P_MARK	Source-Specific Requirements: 4.2.11	Product Marking To determine continuous compliance with the Product Marking (P. MARK) VOC emission limits and given under 4.1.11 (c)(3), the permittee shall monitor and record the monthly and twelve-month rolling total of the amount (in tons) of VOCs used in the Product Marking process. The amount shall be based on actual material properties (VOC contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs used in the Product Marking process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets.	☐ Yes  ✓ No	Attachment ID:
IMF01, GUT-EX, SPN, CO-HD, CO, CS	Source-Specific Requirements: 4.2.12	Control Device Monitoring The permittee shall install, maintain, and operate instrumentation to continuously monitor and record the control device parameters as required under 4.1.12 of this permit including, at a minimum, the following:  Table 4.2.12: Control Device Parameters Monitored/Recorded Control Device Control Device ID Parameter(s) Melting Furnace Baghouse IMF01-BH Pressure Drop WESP Secondary Voltage, Secondary Amperage Curing Oven Afterburner CO-AB Firebox Temperature <sup>(1)</sup> (1) Pursuant to 40 CFR 63, Subpart DDD, §63.1182.	✓ Yes □ No	MACT SemiAnnual Report - 1/31/2022  Attachment ID:
IMF24, CM03, CM04, RFN10	Source-Specific Requirements: 4.2.13(a)	Visible Emissions Compliance Demonstrations Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements: a. 45CSR2 Upon request by the Secretary, compliance with the visible emission requirements of 3.1 [of 45CSR2] shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 3.1 [of 45CSR2]. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control; [40CSR§2-3.2]	□Yes ☑No	Attachment ID:
со	Source-Specific Requirements: 4.2.13(b)	b. 45CSR6  Compliance with the afterburner opacity requirements given under 4.1.12(f)(2)(i) and (ii) shall be based on the compliance demonstrations required for emission point HE01 as given under 4.2.14(c) and (e);	☐ Yes  ✓ No	/ / / Attachment ID:
B170, Rd RM, Rd CM, Rd_FP, IMF03, IMF08, IMF09, IMF25, IMF21, CM10, CM11, CM08, CM09, CE01, CE02, IMF06, IMF04, IMF13, IMF05, IMF01, GUT-EX, CO-HD, CO, SPN, RFNE1, RFNE2, RFNE3, RFNE4, RFNE5, RFNE6, RFNE7, RFNE8, RFNE9	Source-Specific Requirements: 4.2.13(c)	c. 45CSR7 At such reasonable time(s) as the Secretary may designate, compliance with the visible emission requirements of 4.1.2(i), 4.1.3(e), 4.1.4(b), 4.1.5(b), and 4.1.7(f) shall be determined in accordance with the procedures outlined under 45CSR7A;	☐ Yes  ✓ No	/ / / Attachment ID:
RM_REJ, S_REJ, IMF07, IMF10, IMF11, IMF12, IMF14, IMF15, IMF16, IMF17, IMF18	Source-Specific Requirements: 4.2.13(d)	d. 40 CFR 60, Subpart OOO The permittee shall meet all applicable visible emissions Monitoring, Compliance Demonstration, Recording and Reporting requirements as given under 40 CFR 60, Subpart OOO, Sections §60.674 through §60.676;	✓ Yes  No	NSPS OOO Visual Emissions Report - 1/7/2022  Attachment ID:

		Form B - Semi-Annual Monitoring Report			
Permittee: ROXUL USA, I	nc. dba ROCKWOOL		Permit Number: R14-0037		
Emission Unit ID	Condition Number of Permit Requirement	For the reporting period beginning 01/01/2021 and ending 12/31/2021  Monitoring, Data, or Analysis Required by the Permit	Separate Monitoring Report?	Date of Separate Report Submittal or Attachment	
Emission Unit ID	Condition Number of Perint Requirement	stomoting, Data, of Analysis Required by the Fernit	Separate Monitoring Report:	ID	
Total Facility	Source-Specific Requirements: 4.2.13(e)	e. IMF01, HE01, CE01, and IMF05. Emission Points IMF01, HE01, CE01, and IMF05 are subject to the following visible emissions monitoring and compliance demonstration requirements:  (1) In order to determine compliance with the opacity limits of 4.1.3(e), 4.1.4(b), 4.1.5(b), and 4.1.7(f) of this permit, the permittee shall conduct visible emission checks and/or opacity monitoring and recordaceping for Emission Points IMF01, HE01, CE01, and IMF05 in accordance with the following:  (i) The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course;  (ii) Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions; (iii) If visible emissions are within the limits of 4.1.10 of this permit. Said Method 9 readings to confirm that visible emissions are within the limits of 4.1.10 of this permit. Said Method 9 readings shall be taken as soon as practicable, but within seventy-two (72) hours of the Method 22 emission check; and (iv) If, one year of monthly Method 22 readings show that there are no visible emissions, then the frequency of observations shall be returned to	☐ Yes  ▼ No	/ / / Attachment ID:	
Total Facility	Source-Specific Requirements: 4.2.13(f)	For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.14 documenting the date and time of each visible emission check, the emission point or equipment's ource identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Wethod 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent; and	□Yes ▼ No	/ / / Attachment ID:	
Total Facility	Source-Specific Requirements: 4.2.13(g)	g. Any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.	☐ Yes  ✓ No	/ / / Attachment ID:	
IMF01	Source-Specific Requirements: 4.2.16	Resin Tracking/N <sub>2</sub> O Calculation To determine compliance with the annual CO <sub>2</sub> e limit given under Table 4.1.5(a), the permittee shall monitor and record the information given under 4.2.16(a) and (b). The permittee shall then use this information to accludate N <sub>2</sub> O emissions (based on an emission factor of 28.05 lb-N <sub>2</sub> O/ton-resin solids) [14 kg-N <sub>2</sub> O/ton- resin solids)) from the Melting Furnace, and along with established emission CO <sub>2</sub> factors, to determine the annual CO <sub>2</sub> e emissions.  a. Annual amount (based on a rolling twelve month time period) of purchased resin (as solids) based on invoices. The amount may be corrected for binder not used or that is discarded and not applied in the production process; and	☐ Yes  ▼ No	/ / / Attachment ID:	
		b. Solid content in Phenolic Resin (PUF) based on vendor data or operator analysis.			
Total Facility	Source-Specific Requirements: 4.3.1	At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.	☐ Yes  ✓ No	/ / / Attachment ID:	
IMF01, GUT-EX, SPN, CO-HD, CO, CS, RFNE8, CE01, CM10	Source-Specific Requirements: 4.3.2	Emissions Point Performance Testing Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:  [Not Verbatim]: Please see table 4.3.2 in the permit for Performance Testing Requirements	✓ Yes  □ No	Testing Report Submittal - 12/30/2021  Attachment ID:	
IMF01, GUT-EX, SPN, CO-HD, CO, CS, RFNE8, CE01, CM10	Source-Specific Requirements: 4.3.3	With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:  [Now Verbatini: Please see table 4.3.3 in the permit for Performance Testing Schedule	☐ Yes  ✓ No	/ / / Attachment ID:	

		Form B - Semi-Annual Monitoring Report						
Permittee: ROXUL USA,	Inc. dba ROCKWOOL	Facility: RAN Facility	Permit Number: R14-0037					
	For the reporting period beginning 01/01/2021 and ending 12/31/2021							
Emission Unit ID	Condition Number of Permit Requirement	Monitoring, Data, or Analysis Required by the Permit	Separate Monitoring Report?	Date of Separate Report Submittal or Attachment ID				
RM_REJ, S_REJ, IMF07, IMF10, IMF11, IMF12, IMF14, IMF15, IMF16, IMF17, IMF18	Source-Specific Requirements: 4.3.6	40 CFR 60, Subpart OOO The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 60, Subpart A, Section §60.8 and Subpart OOO, Section §60.675.	✓ Yes  □ No	NSPS OOO Visual Emissions Report - 1/7/2022  Attachment ID:				
IMF01, GUT-EX, SPN,	Source-Specific Requirements: 4.3.7	40 CFR 63, Subpart DDD	✓ Yes	Testing Report Submittal - 12/30/2021				
CO-HD, CO, CS		The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 63, Subpart DDD, Sections §63.1188 through §63.1190.	□ No	Attachment ID:				
Total Facility	Source-Specific Requirements: 4.4.1	Record of Monitoring. The permittee shall keep records of monitoring information that include the following:	Yes	111				
		a. The date, place as defined in this permit and time of sampling or measurements; b. The date(s) analyses were performed; c. The company or entity that performed the analyses; d. The analytical techniques or methods used; e. The results of the analyses; and f. The operating conditions existing at the time of sampling or measurement.	▼ No	Attachment ID:				
Total Facility	Source-Specific Requirements: 4.4,3	Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded: a. The equipment involved. b. Steps taken to minimize emissions during the event. c. The duration of the event. d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded: e. The cause of the malfunction. f. Steps taken to correct the malfunction. g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.	i res	/ / / Attachment ID:				

ermittee: RO	OXUL USA, Inc. dba ROCKWO	Facility:	RAN Facility	Permit Number: R14-0037	Permit Number: R14-0038		
For the reporting period beginning 01/01/2021 and ending 12/31/2021							
Emission Unit ID	Condition Number of Permit Requirement	Term or Condition that is the Basis for Certification	What was the deviation <sup>2</sup> from the Term or Condition?	What was the cause for the deviation <sup>2</sup> And what type of corrective measures were taken?	Deviation Time Period Date (mo/day/yr) Time (hr min)		
IMF01	4.2.12	Melt Furnace excess oxygen 3- hour averaging period	For one instance of a single 3-hour averaging period, the excess oxygen was monitored below the levels established during the initial performance testing.	The excess oxygen monitoring parameter for the Melt Furnace fell slightly below the parameter of 1% established during initial performance testing. The excess oxygen deviation is believed to have occurred during a period of operator error. Existing alarms on the Melt Furnace are in place for the measured oxygen parameters within the melt furnace. New alarms have been established to provide warning and alarm feedbacks on the calculated excess oxygen parameter, used to demonstrate compliance. The implementation and training on these alarms should prevent future occurrences of deviations. The Melt Furnace operated for 626 hours during the semiannual period, with 99.5% of operations demonstrating compliance.	11/3/2021 9:00 - 11:00 - 3 hour averaging period		
HE01	4,2.12	Curing Oven Afterburner firebox temperature	For one instance of a single 3-hour averaging period, the Curing Oven Afterburner temperature was monitored below the levels established during the initial performance testing.	The monitoring parameter for Curing Oven Afterburner temperature was set to a lower level, 900C, during the performance testing. The monitoring alarm was not reset to the normal operating parameter of 950 C until it was discovered on November 3, 2021. There have been no instances of deviation from the 3-hour averaging period since the set point was re-established at normal operating conditions. The Curing Oven Afterburner operated for 663 hours during this semiannual period, with 99.5% of operations demonstrating compliance.	11/3/2021 12:00 - 14:00 - 3 hour averaging perio		
IMF01	4.3.2	HE01 Carbon Monoxide (CO) measured emisison rate	The measured CO concentrations at the WESP during initial performance testing exceeded the limits established in R14-0037 Table 4.1.5 (a).	During the initial compliance testing for the WESP exhaust, which includes the Gutter Exhaust (GUT-EX), Spinning Chamber (SPN), Curing Oven Hoods (CO-HID), Curing Oven (CO) and Cooling Section (CS), results indicate that small concentrations of Carbon Monoxide (CO) are conveyed via draft from the Melting Furnace into the Spinning Chamber. This farth or carryover from the Meltin Furnace to the Spinning Chamber results in an exceedance of CO on the WEST exhaust as established in R14-4037 Table 4.1.5(a). The RATA compliance testing demonstrates that the CO generated in the Melting Furnace is measurably less than the permit limit established in R14-0037 Table 4.1.4(a) such that the total site-wide actual measured emissions for CO remain less than the PTE for CO. ROCKWOOL plans to submit an updated application to reflect the CO transfer in R14-0037A.	All periods of operation in the semi-annual period		