



State of Utah

SPENCER J. COX  
Governor

DEIDRE HENDERSON  
Lieutenant Governor

Department of  
Environmental Quality

Kimberly D. Shelley  
Executive Director

DIVISION OF AIR QUALITY  
Bryce C. Bird  
Director

RN131060008

March 27, 2024

Robert Foster  
Hunter Panels LLC  
1285 Ritner Highway  
Carlisle, PA 17013  
robert.foster@carlisleccm.com

Dear Robert Foster,

Re: Engineer Review:  
Minor Modification to DAQE-AN131060007-16 to Remove Annual Foam Production Limit  
Project Number: N131060008

The DAQ requests a company representative review and sign the attached Engineer Review (ER). This ER identifies all applicable elements of the New Source Review permitting program. Hunter Panels LLC should complete this review within **10 business days** of receipt.

Hunter Panels LLC should contact **Dungan Adams** at (385) 290-2474 if there are questions or concerns with the review of the draft permit conditions. Upon resolution of your concerns, please email **Dungan Adams** at [dunganadams@utah.gov](mailto:dunganadams@utah.gov) the signed cover letter. Upon receipt of the signed cover letter, the DAQ will prepare an ITA for a 30-day public comment period. At the completion of the comment period, the DAQ will address any comments and will prepare an Approval Order (AO) for signature by the DAQ Director.

If Hunter Panels LLC does not respond to this letter within **10 business days**, the project will move forward without source concurrence. If Hunter Panels LLC has concerns that cannot be resolved and the project becomes stagnant, the DAQ Director may issue an Order prohibiting construction.

Approval Signature \_\_\_\_\_

*(Signature & Date)*

# UTAH DIVISION OF AIR QUALITY ENGINEER REVIEW

## SOURCE INFORMATION

Project Number	N131060008
Owner Name	Hunter Panels LLC
Mailing Address	1285 Ritner Highway Carlisle, PA, 17013
Source Name	Hunter Panels LLC- Foam Insulation Panel Manufacturing Plant
Source Location	501 South Emerald Road Tooele, UT 84074
UTM Projection	386,465 m Easting, 4,486,193 m Northing
UTM Datum	NAD83
UTM Zone	UTM Zone 12
SIC Code	3086 (Plastics Foam Products)
Source Contact	Robert Foster
Phone Number	(615) 218-6441
Email	robert.foster@carlisleccm.com
Billing Contact	Robert Foster
Phone Number	(615) 218-6441
Email	robert.foster@carlisleccm.com
Project Engineer	Dungan Adams, Engineer
Phone Number	(385) 290-2474
Email	dunganadams@utah.gov
Notice of Intent (NOI) Submitted	November 15, 2023
Date of Accepted Application	January 25, 2024

## **SOURCE DESCRIPTION**

### General Description

Hunter Panels, LLC (Hunter Panels) operates a polyisocyanurate foam insulating panel manufacturing plant, located in Tooele County. The site consists of an insulation panel manufacturing line, raw material storage tanks, two dust collectors, and a boiler. A regenerative thermal oxidizer (RTO) is used to control emissions from the panel manufacturing line. Emissions are primarily emitted from the panel manufacturing line as fugitive VOCs.

### NSR Classification:

Minor Modification at Minor Source

### Source Classification

Located in Northern Wasatch Front O3 NAA and Salt Lake City UT PM<sub>2.5</sub> NAA  
Tooele County  
Airs Source Size: SM

### Applicable Federal Standards

None

### Project Proposal

Minor Modification to DAQE-AN131060007-16 to Remove Annual Foam Production Limit

### Project Description

Hunter Panel, LLC has requested to remove the annual production limit of 100,284,480 lbs of foam from the Approval Order (AO). Additionally, combustion sources under 5 MMBtu/hr have been added to the site-wide PTE and a solvent-based parts washer has been added to the site-wide PTE and approved equipment.

## **EMISSION IMPACT ANALYSIS**

No threshold levels established in R307-410-4 and R307-410-5 are exceeded. All potential emission increases are a result of the source adding combustion sources under 5 MMBtu/hr and updating outdated site-wide emission calculations for the plant. Therefore, modeling is not required  
[Last updated March 27, 2024]

## SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
CO <sub>2</sub> Equivalent	3553.88	6955.88
Carbon Monoxide	2.57	4.87
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Particulate Matter - PM <sub>10</sub>	0.22	2.40
Particulate Matter - PM <sub>2.5</sub>	0.22	2.40
Sulfur Dioxide	0.01	0.03
Volatile Organic Compounds	0	34.80

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
Generic HAPs (CAS #GHAPS)	229	229
Methylene Diphenyl Diisocyanate (MDI) (CAS #101688)	5	5
	Change (TPY)	Total (TPY)
Total HAPs	0.12	0.12

*Note: Change in emissions indicates the difference between previous AO and proposed modification.*

## Review of BACT for New/Modified Emission Units

### 1. BACT review regarding Solvent-Based Parts Washer

The source has added a previously unpermitted solvent-based parts washer to the approved equipment. The washer cleans parts by spraying them with a solvent solution. The DAQ is unaware of a feasible way to control small amounts of solvent emissions produced by the washer.

BACT is considered good operating procedures which includes using the minimal amount of solvent needed, cleaning up spills immediately, keeping lids and covers closed on all solvent containers when not in use, and disposing of used solvent properly. BACT is also complying with UAC Rule R307-304. Solvent Cleaning.

Apart from the parts washer, no equipment is being added or modified and no processes are being changed. The remaining emission increases result only from adding the combustion sources under 5 MMBtu/hr which were left out of the previous AO and updating outdated site-wide emission calculations. BACT analysis is not required for these changes.

[Last updated March 27, 2024]

## SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. **(New or Modified conditions are indicated as “New” in the Outline Label):**

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]

## **SECTION II: PERMITTED EQUIPMENT**

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. (New or Modified conditions are indicated as “New” in the Outline Label):

### **II.A                    THE APPROVED EQUIPMENT**

II.A.1	<b>Foam Insulation Panel Manufacturing Plant</b>
II.A.2	<b>Foam Panel Manufacturing Process</b> Including: the pour table, the laminator, the side trim/crosscut station, and the gang saw station
II.A.3	<b>One (1) Regenerative Thermal Oxidizer (RTO)</b> To control VOC emissions from foam panel manufacturing process
II.A.4	<b>One (1) Baghouse</b> To control the cutting operations
II.A.5	<b>One (1) Cool Vent Baghouse</b> To control the offline cutting equipment of the cool vent process
II.A.6	<b>One (1) Laminator</b> Rated at 2.5 MMBtu/hr
II.A.7	<b>One (1) Natural Gas Fired Boiler</b> Rated at 2.0 MMBtu/hr
II.A.8 NEW	<b>One (1) Solvent-Based Parts Washer</b>

II.A.9	<b>Misc. Natural Gas Fired Space Heaters</b> Rating: < 5 MMBtu/hr each
II.A.10	<b>Misc. Storage Tanks</b>

## SECTION II: SPECIAL PROVISIONS

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### II.B REQUIREMENTS AND LIMITATIONS

II.B.1	<b>The Foam Insulation Panel Manufacturing Plant shall be subject to the following:</b>
II.B.1.a NEW	The owner/operator shall use a regenerative thermal oxidizer (RTO) to control VOC emissions from foam panel manufacturing process. The owner/operator shall route all exhaust air from the foam panel manufacturing process through the RTO before being vented to the atmosphere. The owner/operator shall operate and maintain the RTO in accordance with the manufacturer's instructions and/or recommendations. [R307-401-8]
II.B.1.a.1 NEW	The owner/operator shall operate the RTO at all times except during breakdown as specified in R307-107. [R307-107, R307-401-8]
II.B.1.b NEW	The owner/operator shall use a baghouse (Item II.A.4) to control emissions from cutting operations. The owner/operator shall route all exhaust air from the cutting operations through this baghouse before being vented to the RTO. [R307-401-8]
II.B.1.c NEW	The owner/operator shall use a cool vent baghouse (Item II.A.5) to control emissions from the offline cutting equipment of the cool vent process. The owner/operator shall route all exhaust air from the cool vent process through this cool vent baghouse before being vented to the atmosphere. [R307-401-8]
II.B.1.d NEW	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across each baghouse. The static pressure differential across the fabric filter shall be between 1 to 6 inches of water column. [R307-401-8]
II.B.1.d.1 NEW	The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauge shall measure the pressure drop in 1-inch water column increments or less. The pressure gauge shall be calibrated according to the manufacturer's instructions and/or recommendations. [R307-401-8]
II.B.1.e NEW	The owner/operator shall comply with all applicable solvent cleaning and degreasing conditions in R307-304 and R307-335. [R307-304, R307-335]
II.B.2 NEW	<b>Limitations</b>

II.B.2.a NEW	The owner/operator shall not consume more than 6,307,200 lbs of pentane per rolling 12-month period. [R307-401-8]				
II.B.2.a.1 NEW	To determine compliance with a rolling 12-month total the owner/operator shall: <ul style="list-style-type: none"> <li>A. Determine consumption by supervisor's monitoring and maintaining of an operations log</li> <li>B. Record consumption on a daily basis</li> <li>C. Use the consumption data to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months</li> <li>D. Keep consumption records for all periods when the plant is in operation. [R307-401-8]</li> </ul>				
II.B.2.b NEW	Visible emissions from the following emission points shall not exceed the following values: <ul style="list-style-type: none"> <li>A. The RTO - 10% opacity</li> <li>B. All other points - 10% opacity. [R307-401-8]</li> </ul>				
II.B.2.b.1 NEW	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [40 CFR 60, R307-401-8]				
II.B.3 NEW	<b>Emission Unit Specific Conditions</b>				
II.B.3.a NEW	The owner/operator shall not emit more than the following rates and concentrations from the <b>Regenerative Thermal Oxidizer (RTO)</b> : <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Pollutant</td> <td style="text-align: center;">lb/hr</td> </tr> <tr> <td>VOC</td> <td style="text-align: center;">1.0. [R307-401-8]</td> </tr> </table>	Pollutant	lb/hr	VOC	1.0. [R307-401-8]
Pollutant	lb/hr				
VOC	1.0. [R307-401-8]				
II.B.3.a.1 NEW	<b>Compliance Demonstration</b> To demonstrate compliance with the emission limitations above, the owner/operator shall perform stack testing on the emissions unit according to the stack testing conditions contained in this AO. [R307-165-2, R307-401-8]				
II.B.3.a.2 NEW	<b>Test Frequency</b> The owner/operator shall conduct a stack test on the emission unit within three (3) years after the date of the most recent stack test of the emission unit. The Director may require the owner/operator to perform a stack test at any time. [R307-165-2, R307-401-8]				
II.B.4 NEW	<b>Stack Testing Requirements</b>				
II.B.4.a NEW	<b>The owner/operator shall conduct any stack testing required by this AO according to the following conditions.</b> [R307-401-8]				



II.B.4.a.1 NEW	<b>Notification</b> At least 30 days prior to conducting a stack test, the owner/operator shall submit a source test protocol to the Director. The source test protocol shall include the items contained in R307-165-3. If directed by the Director, the owner/operator shall attend a pretest conference. [R307-165-3, R307-401-8]
II.B.4.a.2 NEW	<b>Testing &amp; Test Conditions</b> The owner/operator shall conduct testing according to the approved source test protocol and according to the test conditions contained in R307-165-4. [R307-165-4, R307-401-8]
II.B.4.a.3 NEW	<b>Access</b> The owner/operator shall provide Occupational Safety and Health Administration (OSHA)- or Mine Safety and Health Administration (MSHA)-approved access to the test location. [R307-401-8]
II.B.4.a.4 NEW	<b>Reporting</b> No later than 60 days after completing a stack test, the owner/operator shall submit a written report of the results from the stack testing to the Director. The report shall include validated results and supporting information. [R307-165-5, R307-401-8]
II.B.4.a.5 NEW	<b>Possible Rejection of Test Results</b> The Director may reject stack testing results if the test did not follow the approved source test protocol or for a reason specified in R307-165-6. [R307-165-6, R307-401-8]
II.B.4.a.6 NEW	<b>Test Methods</b> When performing stack testing, the owner/operator shall use the appropriate EPA-approved test methods as acceptable to the Director. Acceptable test methods for pollutants are listed below. [R307-401-8]
II.B.4.b NEW	<b>Standard Conditions</b> A. Temperature - 68 degrees Fahrenheit (293 K) B. Pressure - 29.92 in Hg (101.3 kPa) C. Averaging Time - As specified in the applicable test method. [40 CFR 60 Subpart A, 40 CFR 63 Subpart A, R307-401-8]
II.B.4.b.1 NEW	<b>VOC</b> 40 CFR 60, Appendix A, Method 18; Method 25; Method 25A; 40 CFR 63, Appendix A, Method 320; or other EPA-approved testing method as acceptable to the Director. [R307-401-8]

## PERMIT HISTORY

When issued, the approval order shall supersede (if a modification) or will be based on the following documents:

Supersedes	DAQE-AN131060007-16 dated November 30, 2016
Is Derived From	NOI dated November 15, 2023
Incorporates	Additional Information dated December 5, 2023
Incorporates	Additional Information dated February 13, 2024
Incorporates	Additional Information dated March 5, 2024

## REVIEWER COMMENTS

- Comment regarding Removal of Foam Production Limit:**  
The source said the foam production limit was originally used to estimate emissions from a scrap processing operation which was never constructed. All scrap processing operations were removed from Approval Order (AO) DAQE-AN3106001-05 on December 16th, 2005, but it is not possible to access emission calculations for the original AO and confirm the scrap processing operations relationship to the foam production limit. However, in the updated emission calculations provided by the source, foam production is not tied to any potential emissions. Therefore, the annual foam production limit does not limit any emissions and is unnecessary. [Last updated March 27, 2024]
- Comment regarding HAP, NO<sub>x</sub>, and CO Emissions Increases:**  
HAP emissions were not listed in the previous AO and have been added to the Summary of Emissions during the modification process. A small increase of NO<sub>x</sub> and CO emissions are a result of the source updating outdated site-wide emission calculations for the plant. The main increase in site-wide PTE is due to the addition of combustion sources under 5 MMBtu/hr. These combustion sources were not included in the previous AO and have been added to the site-wide PTE as a part of the modification. No emission increases are caused by modifications to equipment, production process, or plant operation. [Last updated February 13, 2024]
- Comment regarding Solvent-Based Parts Washer:**  
An unpermitted solvent-based parts washer was found on site during a recent compliance inspection. This parts washer has been added to the AO as a part of the modification. The VOC emissions from the parts washer are calculated from the yearly solvent usage and the solvent VOC content. Annual VOC emissions are conservatively estimated at 0.20 tons per year (TPY).  
  
Based on the updated emission calculations provided by the source, the 0.20 TPY increase in VOCs does exceed the potential to emit (PTE) currently listed in AO DAQE-AN131060007-16. The source's current estimates VOC emissions, including the parts washer, are 33.45 TPY. The source requests to keep the 34.8 TPY emission limit from AO DAQE-AN131060007-16. [Last updated March 11, 2024]
- Comment regarding Federal Subpart Applicability:**  
**NSPS**  
The facility is not subject to 40 CFR 60, Subpart PPP (Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants). The provisions of this subpart apply only to sources which manufacture wool fiberglass insulation. Hunter Panels manufactures polyisocyanurate foam insulation panels, which are rigid, close-celled, and continuous, unlike fiberglass. Therefore, the

source is not subject to this standard. [Last updated March 11, 2024]

5. **Comment regarding Title V Applicability:**

Title V of the 1990 Clean Air Act (Title V) applies to the following:

1. Any major source
2. Any source subject to a standard, limitation, or other requirement under Section 111 of the Act, Standards of Performance for New Stationary Sources;
3. Any source subject to a standard or other requirement under Section 112 of the Act, Hazardous Air Pollutants.
4. Any Title IV affected source.

This facility is not a major source and is not a Title IV source. This facility is not subject to 40 CFR 60 (NSPS), 40 CFR 61 (NESHAP), or 40 CFR 63 (MACT) regulations. Therefore, Title V does not apply to this source. [Last updated March 11, 2024]

## ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO <sub>2</sub>	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds



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Approval Signature Robert Foster 04/1/2024  
(Signature & Date)

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SIC Code	3086 (Plastics Foam Products)
Source Contact	Robert Foster
Phone Number	(615) 218-6441
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I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]

## **SECTION II: PERMITTED EQUIPMENT**

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. (New or Modified conditions are indicated as “New” in the Outline Label):

### **II.A                    THE APPROVED EQUIPMENT**

II.A.1	<b>Foam Insulation Panel Manufacturing Plant</b>
II.A.2	<b>Foam Panel Manufacturing Process</b> Including: the pour table, the laminator, the side trim/crosscut station, and the gang saw station
II.A.3	<b>One (1) Regenerative Thermal Oxidizer (RTO)</b> To control VOC emissions from foam panel manufacturing process
II.A.4	<b>One (1) Baghouse</b> To control the cutting operations
II.A.5	<b>One (1) Cool Vent Baghouse</b> To control the offline cutting equipment of the cool vent process
II.A.6	<b>One (1) Laminator</b> Rated at 2.5 MMBtu/hr
II.A.7	<b>One (1) Natural Gas Fired Boiler</b> Rated at 2.0 MMBtu/hr
II.A.8 NEW	<b>One (1) Solvent-Based Parts Washer</b>

II.A.9	<b>Misc. Natural Gas Fired Space Heaters</b> Rating: < 5 MMBtu/hr each
II.A.10	<b>Misc. Storage Tanks</b>

## SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO. (New or Modified conditions are indicated as “New” in the Outline Label):

### II.B REQUIREMENTS AND LIMITATIONS

II.B.1	<b>The Foam Insulation Panel Manufacturing Plant shall be subject to the following:</b>
II.B.1.a NEW	The owner/operator shall use a regenerative thermal oxidizer (RTO) to control VOC emissions from foam panel manufacturing process. The owner/operator shall route all exhaust air from the foam panel manufacturing process through the RTO before being vented to the atmosphere. The owner/operator shall operate and maintain the RTO in accordance with the manufacturer's instructions and/or recommendations. [R307-401-8]
II.B.1.a.1 NEW	The owner/operator shall operate the RTO at all times except during breakdown as specified in R307-107. [R307-107, R307-401-8]
II.B.1.b NEW	The owner/operator shall use a baghouse (Item II.A.4) to control emissions from cutting operations. The owner/operator shall route all exhaust air from the cutting operations through this baghouse before being vented to the RTO. [R307-401-8]
II.B.1.c NEW	The owner/operator shall use a cool vent baghouse (Item II.A.5) to control emissions from the offline cutting equipment of the cool vent process. The owner/operator shall route all exhaust air from the cool vent process through this cool vent baghouse before being vented to the atmosphere. [R307-401-8]
II.B.1.d NEW	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across each baghouse. The static pressure differential across the fabric filter shall be between 1 to 6 inches of water column. [R307-401-8]
II.B.1.d.1 NEW	The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauge shall measure the pressure drop in 1-inch water column increments or less. The pressure gauge shall be calibrated according to the manufacturer's instructions and/or recommendations. [R307-401-8]
II.B.1.e NEW	The owner/operator shall comply with all applicable solvent cleaning and degreasing conditions in R307-304 and R307-335. [R307-304, R307-335]
II.B.2 NEW	<b>Limitations</b>

II.B.2.a NEW	The owner/operator shall not consume more than 6,307,200 lbs of pentane per rolling 12-month period. [R307-401-8]				
II.B.2.a.1 NEW	To determine compliance with a rolling 12-month total the owner/operator shall: <ul style="list-style-type: none"> <li>A. Determine consumption by supervisor's monitoring and maintaining of an operations log</li> <li>B. Record consumption on a daily basis</li> <li>C. Use the consumption data to calculate a new rolling 12-month total by the 20th day of each month using data from the previous 12 months</li> <li>D. Keep consumption records for all periods when the plant is in operation. [R307-401-8]</li> </ul>				
II.B.2.b NEW	Visible emissions from the following emission points shall not exceed the following values: <ul style="list-style-type: none"> <li>A. The RTO - 10% opacity</li> <li>B. All other points - 10% opacity. [R307-401-8]</li> </ul>				
II.B.2.b.1 NEW	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [40 CFR 60, R307-401-8]				
II.B.3 NEW	<b>Emission Unit Specific Conditions</b>				
II.B.3.a NEW	The owner/operator shall not emit more than the following rates and concentrations from the <b>Regenerative Thermal Oxidizer (RTO)</b> : <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Pollutant</td> <td style="text-align: center;">lb/hr</td> </tr> <tr> <td>VOC</td> <td style="text-align: center;">1.0. [R307-401-8]</td> </tr> </table>	Pollutant	lb/hr	VOC	1.0. [R307-401-8]
Pollutant	lb/hr				
VOC	1.0. [R307-401-8]				
II.B.3.a.1 NEW	<b>Compliance Demonstration</b> To demonstrate compliance with the emission limitations above, the owner/operator shall perform stack testing on the emissions unit according to the stack testing conditions contained in this AO. [R307-165-2, R307-401-8]				
II.B.3.a.2 NEW	<b>Test Frequency</b> The owner/operator shall conduct a stack test on the emission unit within three (3) years after the date of the most recent stack test of the emission unit. The Director may require the owner/operator to perform a stack test at any time. [R307-165-2, R307-401-8]				
II.B.4 NEW	<b>Stack Testing Requirements</b>				
II.B.4.a NEW	<b>The owner/operator shall conduct any stack testing required by this AO according to the following conditions.</b> [R307-401-8]				

II.B.4.a.1 NEW	<b>Notification</b> At least 30 days prior to conducting a stack test, the owner/operator shall submit a source test protocol to the Director. The source test protocol shall include the items contained in R307-165-3. If directed by the Director, the owner/operator shall attend a pretest conference. [R307-165-3, R307-401-8]
II.B.4.a.2 NEW	<b>Testing &amp; Test Conditions</b> The owner/operator shall conduct testing according to the approved source test protocol and according to the test conditions contained in R307-165-4. [R307-165-4, R307-401-8]
II.B.4.a.3 NEW	<b>Access</b> The owner/operator shall provide Occupational Safety and Health Administration (OSHA)- or Mine Safety and Health Administration (MSHA)-approved access to the test location. [R307-401-8]
II.B.4.a.4 NEW	<b>Reporting</b> No later than 60 days after completing a stack test, the owner/operator shall submit a written report of the results from the stack testing to the Director. The report shall include validated results and supporting information. [R307-165-5, R307-401-8]
II.B.4.a.5 NEW	<b>Possible Rejection of Test Results</b> The Director may reject stack testing results if the test did not follow the approved source test protocol or for a reason specified in R307-165-6. [R307-165-6, R307-401-8]
II.B.4.a.6 NEW	<b>Test Methods</b> When performing stack testing, the owner/operator shall use the appropriate EPA-approved test methods as acceptable to the Director. Acceptable test methods for pollutants are listed below. [R307-401-8]
II.B.4.b NEW	<b>Standard Conditions</b> A. Temperature - 68 degrees Fahrenheit (293 K) B. Pressure - 29.92 in Hg (101.3 kPa) C. Averaging Time - As specified in the applicable test method. [40 CFR 60 Subpart A, 40 CFR 63 Subpart A, R307-401-8]
II.B.4.b.1 NEW	<b>VOC</b> 40 CFR 60, Appendix A, Method 18; Method 25; Method 25A; 40 CFR 63, Appendix A, Method 320; or other EPA-approved testing method as acceptable to the Director. [R307-401-8]

## PERMIT HISTORY

When issued, the approval order shall supersede (if a modification) or will be based on the following documents:

Supersedes	DAQE-AN131060007-16 dated November 30, 2016
Is Derived From	NOI dated November 15, 2023
Incorporates	Additional Information dated December 5, 2023
Incorporates	Additional Information dated February 13, 2024
Incorporates	Additional Information dated March 5, 2024

## REVIEWER COMMENTS

- Comment regarding Removal of Foam Production Limit:**  
The source said the foam production limit was originally used to estimate emissions from a scrap processing operation which was never constructed. All scrap processing operations were removed from Approval Order (AO) DAQE-AN3106001-05 on December 16th, 2005, but it is not possible to access emission calculations for the original AO and confirm the scrap processing operations relationship to the foam production limit. However, in the updated emission calculations provided by the source, foam production is not tied to any potential emissions. Therefore, the annual foam production limit does not limit any emissions and is unnecessary. [Last updated March 27, 2024]
- Comment regarding HAP, NO<sub>x</sub>, and CO Emissions Increases:**  
HAP emissions were not listed in the previous AO and have been added to the Summary of Emissions during the modification process. A small increase of NO<sub>x</sub> and CO emissions are a result of the source updating outdated site-wide emission calculations for the plant. The main increase in site-wide PTE is due to the addition of combustion sources under 5 MMBtu/hr. These combustion sources were not included in the previous AO and have been added to the site-wide PTE as a part of the modification. No emission increases are caused by modifications to equipment, production process, or plant operation. [Last updated February 13, 2024]
- Comment regarding Solvent-Based Parts Washer:**  
An unpermitted solvent-based parts washer was found on site during a recent compliance inspection. This parts washer has been added to the AO as a part of the modification. The VOC emissions from the parts washer are calculated from the yearly solvent usage and the solvent VOC content. Annual VOC emissions are conservatively estimated at 0.20 tons per year (TPY).  
  
Based on the updated emission calculations provided by the source, the 0.20 TPY increase in VOCs does exceed the potential to emit (PTE) currently listed in AO DAQE-AN131060007-16. The source's current estimates VOC emissions, including the parts washer, are 33.45 TPY. The source requests to keep the 34.8 TPY emission limit from AO DAQE-AN131060007-16. [Last updated March 11, 2024]
- Comment regarding Federal Subpart Applicability:**  
**NSPS**  
The facility is not subject to 40 CFR 60, Subpart PPP (Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants). The provisions of this subpart apply only to sources which manufacture wool fiberglass insulation. Hunter Panels manufactures polyisocyanurate foam

insulation panels, which are rigid, close-celled, and continuous, unlike fiberglass. Therefore, the source is not subject to this standard. [Last updated March 11, 2024]

5. **Comment regarding Title V Applicability:**

Title V of the 1990 Clean Air Act (Title V) applies to the following:

1. Any major source
2. Any source subject to a standard, limitation, or other requirement under Section 111 of the Act, Standards of Performance for New Stationary Sources;
3. Any source subject to a standard or other requirement under Section 112 of the Act, Hazardous Air Pollutants.
4. Any Title IV affected source.

This facility is not a major source and is not a Title IV source. This facility is not subject to 40 CFR 60 (NSPS), 40 CFR 61 (NESHAP), or 40 CFR 63 (MACT) regulations. Therefore, Title V does not apply to this source. [Last updated March 11, 2024]

## ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO <sub>2</sub>	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds





Dungan Adams <dunganadams@utah.gov>

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## CCM Tooele Space Heater Calculations

4 messages

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**laura.huff@powereng.com** <laura.huff@powereng.com>  
To: "dunganadams@utah.gov" <dunganadams@utah.gov>  
Cc: "Foster, Robert" <robert.foster@carlisleccm.com>

Tue, Feb 13, 2024 at 11:33 AM

Hi Dungan,

Thanks for taking the time to discuss the space heater representations with me last week. The calculations for the space heaters and the updated site wide PTE are attached. Please let me know if you have questions or need additional information.

Thanks,

Laura

LAURA HUFF, P.E.

SR PROJECT ENGINEER II

512-879-4341


972-489-9648 cell

**POWER Engineers, Inc.**

[www.powereng.com](http://www.powereng.com)



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 **Tooele Polyiso Potential Emission Calcs\_v3.pdf**  
129K

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**Dungan Adams** <dunganadams@utah.gov>  
To: "laura.huff@powereng.com" <laura.huff@powereng.com>  
Cc: "Foster, Robert" <robert.foster@carlisleccm.com>

Tue, Feb 13, 2024 at 11:41 AM

Laura,

Great! I will let you know if I have any questions.

Thanks,  
Dungan  
[Quoted text hidden]



## Dungan Adams

Environmental Engineer I | Minor NSR Section

**M:** (385) 290-2474

[airquality.utah.gov](http://airquality.utah.gov)

**Dungan Adams** <dunganadams@utah.gov>  
To: "laura.huff@powereng.com" <laura.huff@powereng.com>  
Cc: "Foster, Robert" <robert.foster@carlisleccm.com>

Tue, Feb 13, 2024 at 2:11 PM

Hi Laura,

The emission calculations for the space heaters were missing HAPs. I've gone ahead and calculated the HAPs using AP-42 Table 1.4-3 & 1.4-4 for the combined 13.59 MMBtu/hr heaters running at 4380 hours per year. I've attached a picture of the calculations and if they look okay to you I will add 0.06 TPY of HAPs to the sitewide PTE.

Everything else looks good.

Thanks,  
Dungan  
[Quoted text hidden]

Natural Gas-Fired Boilers & Heaters					
Equipment Details	Capacity (MMBtu/hr)	Operating Hours (hr/yr)	Capacity (MMBtu/hr)	Operating Hours (hr/yr)	Reference
Boiler	13.59	4380	13.59	4380	AP-42 Table 1.4-3
Heater	0	0	0	0	AP-42 Table 1.4-4
<b>Total</b>	<b>13.59</b>	<b>4380</b>	<b>13.59</b>	<b>4380</b>	

Criteria Pollutant	Concentration (ppm)	Emission Factor (lb/MMBtu)	Emission Rate (lb/hr)	Emission Total (lb/yr)	Reference
SOX		0.02	0.27	0.93	Manufacture Data or AP-42 Table 1.4-3
SO <sub>2</sub>		0.02	0.27	0.93	
PM <sub>10</sub>		0.18	2.45	8.42	
PM <sub>2.5</sub>		0.18	2.45	8.42	
NO <sub>x</sub>		0.21	2.86	9.82	AP-42 Table 1.4-2
CO		0.30	4.07	13.94	
Lead		0.0001	0.0013	0.0045	
HAP		0.001	0.013	0.045	See Emission

**Screenshot 2024-02-13 140621.png**  
29K

**laura.huff@powereng.com** <laura.huff@powereng.com>  
To: Dungan Adams <dunganadams@utah.gov>  
Cc: "Foster, Robert" <robert.foster@carlisleccm.com>

Tue, Feb 13, 2024 at 2:26 PM

Hi Dungan,

That's fine. Thank you.

Laura

**LAURA HUFF, P.E.**

SR PROJECT ENGINEER II

512-879-4341

972-489-9648 cell

**POWER Engineers, Inc.**

[www.powereng.com](http://www.powereng.com)



**From:** Dungan Adams <[dunganadams@utah.gov](mailto:dunganadams@utah.gov)>  
**Sent:** Tuesday, February 13, 2024 3:11 PM  
**To:** Huff, Laura <[laura.huff@powereng.com](mailto:laura.huff@powereng.com)>  
**Cc:** Foster, Robert <[robert.foster@carlisleccm.com](mailto:robert.foster@carlisleccm.com)>  
**Subject:** [EXTERNAL] Re: CCM Tooele Space Heater Calculations

**CAUTION:** This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]



**Dungan Adams**

[Quoted text hidden]

**M:** (385) 290-2474

[airquality.utah.gov](http://airquality.utah.gov) [[airquality.utah.gov](http://airquality.utah.gov)]

--



## Dungan Adams

Environmental Engineer I | Minor NSR Section

**M:** (385) 290-2474

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Dungan Adams &lt;dunganadams@utah.gov&gt;

---

**Fwd: Hunter Panels - Tooele Polyiso Permit Amendment**

1 message

---

**Alan Humpherys** <ahumpherys@utah.gov>  
To: Dungan Adams <dunganadams@utah.gov>

Wed, Nov 15, 2023 at 7:44 AM

Dungan,

Can you please process this permit modification?

- Site ID: 13106
- Peer: EQ

Thanks,  
Alan

----- Forwarded message -----

From: **Foster, Robert** <[robert.foster@carlisleccm.com](mailto:robert.foster@carlisleccm.com)>

Date: Wed, Nov 15, 2023 at 6:38 AM

Subject: Hunter Panels - Tooele Polyiso Permit Amendment

To: [ahumpherys@utah.gov](mailto:ahumpherys@utah.gov) <[ahumpherys@utah.gov](mailto:ahumpherys@utah.gov)>Cc: Ivy, Justin <[justin.ivy@carlisleccm.com](mailto:justin.ivy@carlisleccm.com)>, Haines-Little, Lori <[Lori.Haines-Little@carlisleccm.com](mailto:Lori.Haines-Little@carlisleccm.com)>

Mr. Humphreys,

Please see the attached permit amendment application for the Carlisle Construction Materials Hunter Panels facility located in Tooele, UT. If you have any questions or need any further information, please do not hesitate to contact me.

Regards,

**Robert J. Foster, CHMM, REM, CEA***Sr. Environmental, Health & Safety Divisional Manager  
Carlisle Construction Materials, LLC*

P: 615.218.6441

E: [Robert.Foster@CarlisleCCM.com](mailto:Robert.Foster@CarlisleCCM.com)

F: N/A



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**Alan Humpherys**

Manager | Minor NSR Section


**P:** (385) 306-6520

**F:** (801) 536-4099

[airquality.utah.gov](http://airquality.utah.gov)

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 **Tooele Polyiso Permit Amendment Application\_Final.pdf**  
1142K

November 2023

# **APPROVAL ORDER AMENDMENT APPLICATION**

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*Carlisle Construction Materials, LLC  
Hunter Panels, LLC  
Approval Order No. DAQE-AN131060007-16  
Tooele County, Utah*

**Submitted To:**  
*Utah Division of Air Quality  
195 North 1950 West  
Salt Lake City, UT 84116*

**PROJECT NUMBER:**  
0244155



## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
<b>2.0</b>	<b>PROCESS DESCRIPTION</b> .....	<b>2</b>
<b>3.0</b>	<b>EMISSIONS DATA AND CALCULATIONS</b> .....	<b>3</b>
<b>4.0</b>	<b>STATE REGULATORY REQUIREMENTS</b> .....	<b>4</b>
4.1	R307-401. PERMIT: NEW AND MODIFIED SOURCES.....	4
4.2	R307-401-5. NOTICE OF INTENT.....	4
4.3	R307-403. PERMITS: NEW AND MODIFIED SOURCES IN NONATTAINMENT AREAS AND MAINTENANCE AREAS.....	4
4.4	R307-405. PERMITS: MAJOR SOURCES IN ATTAINMENT OR UNCLASSIFIED AREAS (PSD).....	4
4.5	R307-415. PERMITS: OPERATING PERMIT REQUIREMENTS.....	4
<b>5.0</b>	<b>FEDERAL REGULATORY REQUIREMENTS</b> .....	<b>5</b>
5.1	NEW SOURCE PERFORMANCE STANDARDS.....	5
5.2	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS.....	5
5.3	MAXIMUM ACHIEVABLE CONTROL TECHNOLOGIES.....	5
<b>6.0</b>	<b>APPROVAL ORDER FEES</b> .....	<b>6</b>

## APPENDICES:

APPENDIX A	EMISSION CALCULATIONS
APPENDIX B	UDEQ FORMS



## 1.0 INTRODUCTION

Carlisle Construction Materials, LLC (CCM) owns and operates Hunter Panels, LLC, a polyisocyanurate foam insulating panel manufacturing plant, located in Tooele, Tooele County, Utah. The site consists of an insulation panel manufacturing line, raw material storage tanks, two dust collectors, and a boiler. A regenerative thermal oxidizer (RTO) is used to control emissions from the panel manufacturing line. Air emissions generated at CCM are authorized under Approval Order (AO) DAQE-AN131060007-16.

The purpose of this application is to amend AO DAQE-AN131060007-16 to remove the annual foam production limit from the Approval Order (Special Condition II.B.2.b.B.). The foam production limit is not directly related to the volatile organic carbon (VOC) emission limits from the plant. In the original Approval Order application, the annual foam production amount was used to estimate the VOC emissions from the scrap processing operation and was not used to estimate emissions from the foam panel manufacturing process. The scrap process was never constructed at this plant; therefore, the annual foam production limit is not needed. The VOC emissions from the foam panel manufacturing process are limited by the pentane consumption amount specified in Special Condition II.B.2.b.A. of the Approval Order.

CCM also represents that the panel manufacturing line can operate at the designed maximum hourly pentane input rate and maintain VOC emissions at the RTO under the limit of 1.0 lb/hr. CCM is not requesting any changes to the annual pentane usage limit (Special Condition II.B.2.b.A.), the hourly VOC limit at the RTO, or the site-wide emission limits.

## 2.0 PROCESS DESCRIPTION

CCM manufactures polyisocyanurate foam insulating panels for use in commercial and industrial roofing applications. The product, a rigid foam panel, is produced by reacting a polyol (POLY) in a blend with polymeric diphenylmethane diisocyanate (ISO). Pentane is used as a blowing agent and is injected into the polyol blend mixture and mixed with ISO at high pressure. The reactions between the chemicals cause the foam to expand and reach the desired volume. The panel manufacturing line is vented to an RTO.

Panel sawing operations are conducted to cut the foam panels into the desired sizes. Panel sawing operations are served by a main dust collection system that exhausts filtered air to the RTO. Additional offline cutting operations are served by the Cool Vent Baghouse. Ancillary operations include the raw material storage tanks and a natural gas-fired boiler.

### 3.0 EMISSIONS DATA AND CALCULATIONS

Emissions from the process line consist of VOC and particulate matter (PM) from cutting operations. Emissions from the pour table and the laminator area are directed through ventilation systems to the RTO. Emissions from the inline cutting stations are combined to exhaust into the dust collection system. The dust collector is vented to the RTO.

With this Approval Order amendment, CCM is proposing to remove the foam production limit from the Approval Order. This limit has no effect on the VOC emissions currently authorized at the plant. The foam production limit was directly tied to the emissions from the scrap shredder, which was never installed and was removed from the Approval Order.

VOC emissions from the process line are calculated based on the pentane feed rate to the line and not on the foam production limit. The hourly feed rate of pentane may fluctuate based on the product produced; however, CCM will not exceed the emission limit of 1.0 pound per hour (lb/hr) at the RTO or the annual pentane feed rate of 6,307,200 pounds per rolling 12-month period. In May 2023, CCM conducted a stack test to measure the emissions from the RTO at maximum operating conditions and demonstrated that the emissions from the RTO will meet the 1.0 lb/hr emission limit and the equipment design capacity. Annual usage of the blowing agent and annual VOC emissions are not increasing with this amendment request.

The PM emissions from the cutting operations are based on the maximum airflow from each dust collector and the manufacturer's guaranteed emission rate. The foam production limit has no effect on the PM emissions from the plant. This amendment request will not impact PM emissions.

The emission calculations in Appendix C show the estimated VOC emission rates from the process line at the annual pentane feed rate. As shown in the emission calculations, the plant will not exceed the hourly authorized emission rate from the RTO at the maximum hourly feed rate or the annual authorized VOC limit when operating at the annual pentane feed rate.

## **4.0 STATE REGULATORY REQUIREMENTS**

This section addresses the assurance of regulatory compliance for the amendment request for CCM. As outlined in the following evaluation, the facilities covered by Approval Order No. DAQE-AN131060007-16 complies with all rules and regulations of the UDEQ and with the provisions of the existing Approval Order.

### **4.1 R307-401. Permit: New and Modified Sources.**

CCM is requesting to remove the foam production limit from Approval Order No. DAQE-AN131060007-16. CCM is not constructing a new installation or modifying an existing installation that would cause an increase in air emissions or change the nature of air emissions discharged.

### **4.2 R307-401-5. Notice of Intent.**

This application constitutes the Notice of Intent for the requested Approval Order modification. This application includes a process description, air pollutant types, emission rates, and the appropriate UDEQ forms.

### **4.3 R307-403. Permits: New and Modified Sources in Nonattainment Areas and Maintenance Areas.**

CCM is located in a nonattainment area of the NAAQS for PM<sub>2.5</sub>. The requested modification to Approval Order No. DAQE-AN131060007-16 will not result in a change to the PM<sub>2.5</sub> emissions. There will be no increase in PM<sub>2.5</sub> emissions; therefore, Nonattainment Review is not required.

### **4.4 R307-405. Permits: Major Sources in Attainment or Unclassified Areas (PSD)**

CCM is located in an attainment area for all criteria pollutants other than PM<sub>2.5</sub>. The requested modification to Approval Order No. DAQE-AN131060007-16 will not result in an increase in annual emissions of any pollutant; therefore, PSD review is not required.

### **4.5 R307-415. Permits: Operating Permit Requirements.**

CCM is not a major source of air pollutants; therefore, this section does not apply.

## **5.0 FEDERAL REGULATORY REQUIREMENTS**

### **5.1 New Source Performance Standards**

CCM is not subject to any New Source Performance Standards under 40 Code of Federal Regulations (CFR) Part 60.

### **5.2 National Emission Standards for Hazardous Air Pollutants**

The emissions from CCM do not have any applicable NESHAP, as listed under 40 CFR Part 61, promulgated by USEPA under CAA, Section 112, as amended.

### **5.3 Maximum Achievable Control Technologies**

CCM is a minor source of HAP emissions. 40 CFR 63 regulations do not apply to this source.

## **6.0 APPROVAL ORDER FEES**

CCM is required to pay an air permitting fee in the amount of \$2,800 for a minor modification at a minor source.

## **APPENDIX A    EMISSION CALCULATIONS**

**Carlisle Construction Materials, LLC  
Tooele, Utah  
Pentane Emissions From Process Line**

**I. Basis of Calculations**

Emissions of the blowing agent from the pour table, laminator, and in-line foam board cutting are based on stack testing at the Tooele, UT plant conducted in May 2023. VOC emissions from the pour table and laminator are captured and routed to a Regenerative Thermal Oxidizer (RTO) for control. The control device has a control efficiency of 98%. The overall capture efficiency of the process line (pour table, laminator, and in-line panel sawing) is estimated at 86%; therefore, 14% of the pentane emissions are fugitive emissions from the building.

Emissions from all foam panel cutting operations are captured and routed to one of two dust collectors for control of the particulate matter emissions. Capture efficiency for the cutting tables is 100%; therefore, no fugitive emissions are expected. Particulate matter emissions from the cutting tables are not impacted by this project.

**II. Process Line VOC Emission Calculations**

Total Pentane Evolved Emission Factor =	0.0521 lb VOC/lb blowing agent	<i>Developed from stack testing at Tooele Plant, May 25, 2023</i>
RTO Destruction Efficiency =	98%	
Capture Efficiency	86%	<i>Based On Stack Testing at Sister Plant</i>

**VOC Emissions**

Blowing Agent Feed Rate <sup>1</sup>	RTO Emissions		Fugitive Emissions		Total Pentane Process Emissions	
	lb/yr	lb/hr <sup>2</sup>	tpy	lb/hr	tpy	lb/hr
6,307,200	<b>0.86</b>	<b>2.83</b>	<b>5.25</b>	<b>23.00</b>	<b>6.11</b>	<b>25.82</b>

<sup>1</sup> Annual emissions are based on the permitted blowing agent rate on a rolling 12-month period.

<sup>2</sup> Hourly emissions from the RTO were measured during a stack test on May 25, 2023, at the maximum hourly pentane feed rate and will remain below 1.0 lb/hr in accordance with the Approval Order.

**Example calculations:**

Annual Fugitive VOC emissions, tpy =	Annual pentane feed rate * Pentane Emitted Emission Factor * (1-capture efficiency) / 2,000 lb/ton
Annual RTO VOC emissions, tpy =	Annual pentane feed rate * Pentane Emitted Emission Factor * Capture Efficiency * (1-RTO DRE) / 2,000 lb/ton



## **APPENDIX B UDEQ FORMS**



**Form 1  
Notice of Intent (NOI) Application Checklist**

Date 11/13/2023

Company Hunter Panels, LLC

**Utah Division of Air Quality  
New Source Review Section**

AIR QUALITY

**Source Identification Information [R307-401-5]**

- 1. Company name, mailing address, physical address and telephone number
- 2. Company contact (Name, mailing address, and telephone number)
- 3. Name and contact of person submitting NOI application (if different than 2)
- 4. Source Universal Transverse Mercator (UTM) coordinates
- 5. Source Standard Industrial Classification (SIC) code
- 6. Area designation (attainment, maintenance, or nonattainment)
- 7. Federal/State requirement applicability (NAAQS, NSPS, MACT, SIP, etc.)
- 8. Source size determination (Major, Minor, PSD)
- 9. Current Approval Order(s) and/or Title V Permit numbers

**NOI Application Information: [R307-401]**

- 1. Detailed description of the project and source process
- 2. Discussion of fuels, raw materials, and products consumed/produced
- 3. Description of equipment used in the process and operating schedule
- 4. Description of changes to the process, production rates, etc.
- 5. Site plan of source with building dimensions, stack parameters, etc.

- 6. Best Available Control Technology (BACT) Analysis [R307-401-8]
  - A. BACT analysis for all new and modified equipment

- 7. Emissions Related Information: [R307-401-2(b)]
  - A. Emission calculations for each new/modified unit and site-wide (Include PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOCs, HAPs, and GHGs)
  - B. References/assumptions, SDS, for each calculation and pollutant
  - C. All speciated HAP emissions (list in lbs/hr)

- 8. Emissions Impact Analysis – Approved Modeling Protocol [R307-410]
  - A. Composition and physical characteristics of effluent (emission rates, temperature, volume, pollutant types and concentrations)

- 9. Nonattainment/Maintenance Areas – Major NSR/Minor (offsetting only) [R307-403]
  - A. NAAQS demonstration, Lowest Achievable Emission Rate, Offset requirements  N/A
  - B. Alternative site analysis, Major source ownership compliance certification  N/A

- 10. Major Sources in Attainment or Unclassified Areas (PSD) [R307-405, R307-406]
  - A. Air quality analysis (air model, met data, background data, source impact analysis)  N/A
  - B. Visibility impact analysis, Class I area impact  N/A

- 11. Signature on Application

Note: The Division of Air Quality will not accept documents containing confidential information or data. Documents containing confidential information will be returned to the Source submitting the application.

Document Date: 02/28/2018



DAQ 2018-002271



**Form 2**  
**Company Information/Notice of Intent (NOI)**

Date 11/13/2023

**Utah Division of Air Quality**  
**New Source Review Section**

AIR QUALITY

Application for:  Initial Approval Order  Approval Order Modification

**General Owner and Source Information**

<p>1. Company name and mailing address: <u>Hunter Panels, LLC</u> <u>501 South Emerald Road</u> <u>Tooele, UT 84074</u> Phone No.: <u>(435) 843-2483</u> Fax No.: ( )</p>	<p>2. Company** contact for environmental matters: <u>Robert Foster</u> Phone no.: <u>(615) 218-6441</u> Email: <u>robert.foster@carlisleccm.com</u> <small>** Company contact only; consultant or independent contractor contact information can be provided in a cover letter</small></p>
<p>3. Source name and physical address (if different from above): <u>Foam Insulation Panel Manufacturing Plant</u> <u>501 South Emerald Road</u> <u>Tooele, UT 84074</u> Phone no.: <u>(435) 843-2483</u> Fax no.: ( )</p>	<p>4. Source Property Universal Transverse Mercator coordinates (UTM), including System and Datum: <u>UTM: 12</u> <u>X: 386,465 m Easting</u> <u>Y: 4,486,193 m Northing</u></p>
<p>5. The Source is located in: <u>Tooele</u> County</p>	<p>6. <u>Standard Industrial Classification Code (SIC)</u> <u>3086</u></p>
<p>7. If request for modification, AO# to be modified: DAQE # <u>DAQE-AN131060007-16</u> DATED: <u>11</u> / <u>30</u> / <u>2016</u></p>	
<p>8. Brief (50 words or less) description of process. CCM manufactures polyisocyanurate foam insulating panels for use in commercial and industrial roofing applications.</p>	

Electronic NOI

9. A complete and accurate electronic NOI submitted to DAQ Permitting Mangers Jon Black ([jblack@utah.gov](mailto:jblack@utah.gov)) or Alan Humpherys ([ahumpherys@utah.gov](mailto:ahumpherys@utah.gov)) can expedite review process. Please mark application type.

Hard Copy Submittal  Electronic Copy Submittal  Both

**Authorization/Signature**

I hereby certify that the information and data submitted in and with this application is completely true, accurate and complete, based on reasonable inquiry made by me and to the best of my knowledge and belief.

Signature: Lori A. Haines-Little Title: Plant Manager

<p><u>Lori A. Haines-Little</u> Name (Type or print)</p>	<p>Telephone Number: <u>(435) 843-2483</u> Email: <u>lori.haines-little@carlisleccm.com</u></p>	<p>Date: <u>11/14/2023</u></p>
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Document Date: 02/28/2018



DAQ-2018-002272



**Form 4  
Project Information**

Company Hunter Panels, LLC  
Site Foam Insulation Panel Manufacturing Plant

**Utah Division of Air Quality  
New Source Review Section**

**Process Data - For Modification/Amendment ONLY**

1. Permit Number DAQE-AN131060007-16  
*If submitting a new permit, then use Form 3*

**Requested Changes**

<p>2. Name of process to be modified/added: <u>Foam panel production process</u></p> <p>End product of this process: <u>Foam panels</u></p>	<p>3. Permit Change Type:      New      Increase*</p> <p>Equipment                      <input type="checkbox"/>      <input type="checkbox"/></p> <p>Process                           <input type="checkbox"/>      <input type="checkbox"/></p> <p>Condition Change <u>Remove annual foam production limit</u></p> <p>Other _____</p> <p>Other _____</p> <p>Other _____</p>
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<p>4. Does new emission unit affect existing permitted process limits?</p> <p>Yes <input type="checkbox"/>                  No <input type="checkbox"/></p>	<p>5. Condition(s) Changing:</p> <p>CCM is requesting the removal of the foam production limit (Special Provision II.B.2.b.B) from the permit. CCM is representing that the process line can operate at maximum hourly pentane input rate and remain below authorized emission rates of 1.0 lb/hr VOC at the RTO.</p>
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6. Description of Permit/Process Change\*\*

CCM is requesting the removal of the foam production limit (Special Provision II.B.2.b.B) from the permit. The foam production limit is not directly related to the VOC emission limits from the plant. In the original permit application, the annual foam production was used to estimate the emissions from the scrap processing operation and was not used to estimate emissions from the foam panel manufacturing process or the panel cutting operations. The scrap process was never constructed at this plant. Therefore, the annual foam production limit is not needed.

CCM is also representing that the process line can operate at the designed maximum hourly blowing agent input rate and maintain VOC emissions at the RTO under the limit of 1.0 lb/hr. CCM is not requesting any changes to the annual pentane usage limit (Special Condition II.B.2.b.A.), the hourly VOC limit at the RTO, or the site wide emission limits.

7. New or modified materials and quantities used in process. \*\*

Material	Quantity Annually
None	

8. New or modified process emitting units \*\*

Emitting Unit(s)	Capacity(s)	Manufacture Date(s)
None		

*\*If the permit being modified does not include CO<sub>2</sub>e or PM<sub>2.5</sub>, the emissions need to be calculated and submitted to DAQ, which may result in an emissions increase and a public comment period.*

*\*\*If additional space is required, please generate a document to accommodate and attach to form.*



**Form 5  
Emissions Information  
Criteria/GHG's/ HAP's  
Utah Division of Air Quality  
New Source Review Section**

Company Hunter Panels, LLC  
Site Foam Insulation Panel Manufacturing Plant

<b>Potential to Emit* Criteria Pollutants &amp; GHGs</b>			
<b>Criteria Pollutants</b>	<b>Permitted Emissions (tons/yr)</b>	<b>Emissions Increases (tons/yr)</b>	<b>Proposed Emissions (tons/yr)</b>
PM <sub>10</sub> Total	2.18	0.00	2.18
PM <sub>10</sub> Fugitive	0.00	0.00	0.00
PM <sub>2.5</sub>	2.18	0.00	2.18
NO <sub>x</sub>	2.80	0.00	2.80
SO <sub>2</sub>	0.02	0.00	0.02
CO	2.30	0.00	2.30
VOC	34.80	0.00	34.80
VOC Fugitive	23.00	0.00	23.00
NH <sub>3</sub>	0.00	0.00	0.00
<b>Greenhouse Gases</b>	<b>CO<sub>2</sub>e</b>	<b>CO<sub>2</sub>e</b>	<b>CO<sub>2</sub>e</b>
CO <sub>2</sub>			
CH <sub>4</sub>			
N <sub>2</sub> O			
HFCs			
PFCs			
SF <sub>6</sub>			
<b>Total CO<sub>2</sub>e</b>	3,402.00	0.00	3,402.00

\*Potential to emit to include pollution control equipment as defined by R307-401-2.

<b>Hazardous Air Pollutants**</b> (**Defined in Section 112(b) of the Clean Air Act )				
<b>Hazardous Air Pollutant***</b>	<b>Permitted Emissions (tons/yr)</b>	<b>Emission Increase (tons/yr)</b>	<b>Proposed Emission (tons/yr)</b>	<b>Emission Increase (lbs/hr)</b>
<b>Total HAP</b>				

\*\*\* Use additional sheets for pollutants if needed

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DAQ 2018-002234



Document Date: 02/28/2018



DAQ 2018-002274