



UNITED STATES GYPSUM COMPANY
78 NORTH STATE
SIGURD, UTAH 84657

Alan Humphreys
Division of Air Quality
150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820

July 10, 2020

Subject: U. S. Gypsum Company of Sigurd, Utah is requesting an Air Quality Approval Order modification with the attached NOI information. The Approval Order to be modified is DAQE-ANI106540010-20.

Dear Mr. Humphreys,

The purpose of these modifications is to include recent flow testing completed at the plant. This will align us within compliance of the approval order flow rates and limits. These modifications will not increase the overall PM₁₀ emissions of the current approval order.

This modification will include the following dscfm changes.

- Approval Order Item **II.B.4 #1 PST Dust Collector (B9)** flow rate of 2,551 dscfm will be modified to a flow rate of 2,200 dscfm.
- Approval Order Item **II.B.7 Mini-Kettle & PST Dust Collector (B9)** bag house flow rate of 1,717 dscfm will be modified to a flow rate of 950 dscfm.
- Approval Order Item **11.B.9 Dunnage Machine Baghouse (B13)** bag house flow rate of 8,229 dscfm will be modified to a flow rate of 4,680 dscfm.
- Approval Order Item **II.B.12 Raymond Mill Baghouse (M2)** flow rate of 4,482 dscfm will be modified to a flow rate of 2,180 dscfm.

Please contact us should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Clay Shumway", written over a horizontal line.

Clay Shumway
Engineering Manager
U. S. Gypsum -- Sigurd Plant
435.896.2431



Form 1
Notice of Intent (NOI) Application Checklist
Utah Division of Air Quality
New Source Review Section

Date 7/10/2020
 Company United States Gypsum Company

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 PM₁₀, PM_{2.5}, NO_x, SO₂, 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.




Form 2
Company Information/Notice of Intent (NOI)

Date 7/10/2020

Utah Division of Air Quality
New Source Review Section

AIR QUALITY

Application for: Initial Approval Order Approval Order Modification

General Owner and Source Information		
1. Company name and mailing address: <u>United States Gypsum Corp</u> <u>78 N State Street</u> <u>Sigurd, Utah 84657</u> Phone No.: <u>(435) 896-2400</u> Fax No.: <u>(435) 896-2407</u>		2. Company** contact for environmental matters: <u>Clay Shumway</u> Phone no.: <u>((435) 896-2431</u> Email: <u>cshumway@usg.com</u> <small>** Company contact only; consultant or independent contractor contact information can be provided in a cover letter</small>
3. Source name and physical address (if different from above): _____ _____ _____ Phone no.: () Fax no.: ()		4. Source Property Universal Transverse Mercator coordinates (UTM), including System and Datum: <u>UTM: 12</u> <u>X: 416,395 m Easting</u> <u>Y: 4,299,366 m Northing</u>
5. The Source is located in: <u>Sevier</u> County		6. <u>Standard Industrial Classification Code (SIC)</u> <u>3275</u>
7. If request for modification, AO# to be modified: DAQE # <u>DAQE-ANI106540010-20</u> DATED: <u>06 / 17 / 2020</u>		
8. Brief (50 words or less) description of process. <u>See attached Letter</u>		
Electronic NOI 9. A complete and accurate electronic NOI submitted to DAQ Permitting Mangers Jon Black (<u>jblack@utah.gov</u>) or Alan Humpherys (<u>ahumpherys@utah.gov</u>) can expedite review process. Please mark application type. Hard Copy Submittal <input type="checkbox"/> Electronic Copy Submittal <input checked="" type="checkbox"/> Both <input type="checkbox"/>		
Authorization/Singnature		
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:  Title: <u>Engineering Manager</u>		Date:
<u>Clay Shumway</u> Name (Type or print)		Telephone Number: <u>((435) 896-2431</u> Email: <u>cshumway@usg.com</u>



**Form 4
Project Information**

Company United States Gypsum Company
Site Sigurd Utah Plant

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

AIR QUALITY

Process Data - For Modification/Amendment ONLY																							
1. Permit Number <u>DAQE-ANI106540010-20</u>																							
<i>If submitting a new permit, then use Form 3</i>																							
Requested Changes																							
2. Name of process to be modified/added: <u>Mini-Kettle & PST Dust Collector (B9); Dunnage Machine Baghouse (B13); Raymond Mill Dust C</u> End product of this process: _____	3. Permit Change Type: <table style="width:100%; border: none;"> <tr> <td></td> <td style="text-align: center;">New</td> <td style="text-align: center;">Increase*</td> </tr> <tr> <td>Equipment</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Process</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Condition Change</td> <td colspan="2" style="text-align: center;"><u>Flow Rate Reduced</u></td> </tr> <tr> <td>Other</td> <td colspan="2">_____</td> </tr> <tr> <td>Other</td> <td colspan="2">_____</td> </tr> <tr> <td>Other</td> <td colspan="2">_____</td> </tr> </table>			New	Increase*	Equipment	<input type="checkbox"/>	<input type="checkbox"/>	Process	<input type="checkbox"/>	<input type="checkbox"/>	Condition Change	<u>Flow Rate Reduced</u>		Other	_____		Other	_____		Other	_____	
	New	Increase*																					
Equipment	<input type="checkbox"/>	<input type="checkbox"/>																					
Process	<input type="checkbox"/>	<input type="checkbox"/>																					
Condition Change	<u>Flow Rate Reduced</u>																						
Other	_____																						
Other	_____																						
Other	_____																						
4. Does new emission unit affect existing permitted process limits? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	5. Condition(s) Changing: Reduced flow rate through the collectors associated with EU B9 (Mini-Kettle PST), EU B13 (Dunnage Machine), EU M2 (Raymond Mill) and EU B1 (#1 PST)																						
6. Description of Permit/Process Change** Please see attached document.																							
7. New or modified materials and quantities used in process. **																							
Material	Quantity Annually																						
8. New or modified process emitting units **																							
Emitting Unit(s)	Capacity(s)	Manufacture Date(s)																					

**If the permit being modified does not include CO₂e or PM_{2.5}, 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.*



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

RN106540011

September 3, 2020

Clay Shumway
United States Gypsum Company
78 N State Street
Sigurd, UT 84657

Dear Clay Shumway,

Re: Engineer Review:
Modification to AO DAQE-AN106540010-20 to Reduce Air Flow Rates through Baghouses
Project Number: N106540011

The DAQ requests a company representative (Title V Responsible Official for enhanced Approval Order application) review and sign the attached Engineer Review (ER). This ER identifies all applicable elements of the New Source Review permitting program. United States Gypsum Company should complete this review within **10 business days** of receipt.

United States Gypsum Company should contact **Mr. Enqiang He** at (801) 536-4010 if there are questions or concerns with the review of the draft permit conditions. Upon resolution of your concerns, please email eh@utah.gov the signed cover letter to Mr. Enqiang He. 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 AO for signature by the DAQ Director.

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

Approval Signature

(Signature & Date)

9/10/20



Enqiang He <ehe@utah.gov>

New Project

Enqiang He <ehe@utah.gov>

Thu, Jul 30, 2020 at 12:06 PM

To: "Shumway, Christopher C" <CShumway@usg.com>

Cc: "Bolden, John" <JBolden@usg.com>, "Kuzmaul, Stacy L" <SKuzmaul@usg.com>

Clay,

The baghouse grain loading of 0.01 grain/dscf was based on the BACT when the baghouses were permitted. In order to modify this outlet particulate concentration, a new BACT will need to be conducted. From what I see throughout the years, this number has been reduced to below 0.01 grain/dscf. It will be very difficult to raise the grain loading from the current level, particularly when the level was established and resulted from a BACT analysis years ago.

With this in mind, I wouldn't be able to raise the grain loading for these baghouses unless a new BACT is provided.

Please let me know what you think. Thanks,



EQ He, CPM

Permitting Engineer, Minor NSR Section, Permitting Branch |
Division of Air Quality

1950 West 195 North, Salt Lake City, UT 84116

P: (801) 536-4010

ehe@utah.gov



On Mon, Jul 20, 2020 at 3:59 PM Shumway, Christopher C <CShumway@usg.com> wrote:

EQ,

We also want to write a permit in a way that we do not have to come back to do another modification unless it is necessary.

The annual operating hours for these 4 baghouses we would request to remain at 8,760.

We are comfortable with the current range of pressure drops through the baghouses.

Our intent was not to reduce emissions but only to correct the "at least" dscfm flow rate required. Therefore.

We would also request the modification to include the following Limits and test Procedures changes.

- Approval Order Item **II.B.4 #1 PST Dust Collector (B9)** PM₁₀ limit of 0.01 grains/dscf will be modified to 0.0116 grains/dscf. The PM₁₀ limit of 0.22 lb/hr will remain the same.
- Approval Order Item **II.B.7 Mini-Kettle & PST Dust Collector (B9)** PM₁₀ limit of 0.01 grains/dscf will be modified to 0.0181 grains/dscf. The PM₁₀ limit of 0.15 lb/hr will remain the same.
- Approval Order Item **II.B.9 Dunnage Machine Baghouse (B13)** PM₁₀ limit of 0.01 grains/dscf will be modified to 0.0176 grains/dscf. The PM₁₀ limit of 0.71 lb/hr will remain the same.
- Approval Order Item **II.B.12 Raymond Mill Baghouse (M2)** PM₁₀ limit of 0.01 grains/dscf will be modified to 0.0206 grains/dscf. The PM₁₀ limit of 0.38 lb/hr will remain the same.

These modifications will not increase the overall emissions of the current approval order.

Please let me know your thoughts.

Thanks,

Clay Shumway

Engineering Manager

United States Gypsum Company

Sigurd Plant

t:(435) 896-2431

c:(435) 633-0163

f:(435) 896-2407

From: Enqiang He <ehe@utah.gov>
Sent: Thursday, July 16, 2020 4:01 PM
To: Shumway, Christopher C <CShumway@usg.com>
Subject: [EXTERNAL] Re: New Project

Hi Clay,

I went over your application for modification. It looks like you wanted to reduce flow rates through the baghouses. The reductions vary, with more than 50% in one case. I wanted to write a permit in a way you would not have to come back to do another modification unless it is necessary. Here are my thoughts:

1. With the flow rates reduced, I would expect there could be emissions reductions. If you can let me know the annual operating hours for these 4 baghouses, I can figure that out for you.

2. Also with the reduced flow rates, the pressure drops through the baghouses could also be affected. If you are comfortable with the current range, then that's fine; if not, just let me know the new pressure drop ranges when the 4 baghouses operate under the conditions of reduced flow rates.

Please let me know your thoughts. Thanks.

EQ He, CPM

Permitting Engineer, Minor NSR Section, Permitting Branch |
Division of Air Quality

1950 West 195 North, Salt Lake City, UT 84116

P: (801) 536-4010

ehe@utah.gov



On Thu, Jul 16, 2020 at 9:05 AM Enqiang He <ehe@utah.gov> wrote:

Hi Clay,

We have received your new NOI to modify the recently issued AO. I am again assigned to review the project. Within the next

week or so, I will contact you and give you an update.
Meanwhile, let me know if you have any questions. Thanks.

EQ He, CPM

Permitting Engineer, Minor NSR Section, Permitting Branch |
Division of Air Quality

1950 West 195 North, Salt Lake City, UT 84116

P: (801) 536-4010

ehc@utah.gov



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