

Allnex USA, Inc.

252 Heilman Avenue
Belmont, WV 26134

April 22, 2016

WVDEP - Division of Air Quality
DAQ Permitting Section
601 57th Street SE
Charleston, WV 25304

Subject: Allnex USA Inc. – Willow Island Plant (DAQ Plant ID# 073-00030)
Application for Modification to Permit R13-2473J

Dear Madam or Sir:

Allnex USA Inc. (Allnex) is requesting that the Division of Air Quality (DAQ) grant a Modification to Permit R13-2473J for proposed minor changes at our Willow Island Plant, located in Pleasants County.

Please find enclosed the Rule 13 Permit Application for Modification, with certification by our Responsible Official. The application package consists of one hard copy and two compact discs, per the DAQ website's guidance. Also please find enclosed our application fee check in the amount of \$3,500.00, made payable to WVDEP – Division of Air Quality.

Should you require any additional information, please contact me at 304-665-1644, or via e-mail (Dave.Lieving@allnex.com).

Sincerely,



David E. Lieving
Sr. Operations Engineer, Willow Island Plant
Allnex USA Inc.

Enclosures


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	WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF AIR QUALITY 601 57 th Street, SE Charleston, WV 25304 (304) 926-0475 www.wvdep.org/daq	APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION (OPTIONAL)
PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN): <input type="checkbox"/> CONSTRUCTION <input checked="" type="checkbox"/> MODIFICATION <input type="checkbox"/> RELOCATION <input type="checkbox"/> CLASS I ADMINISTRATIVE UPDATE <input type="checkbox"/> TEMPORARY <input type="checkbox"/> CLASS II ADMINISTRATIVE UPDATE <input type="checkbox"/> AFTER-THE-FACT		PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY): <input type="checkbox"/> ADMINISTRATIVE AMENDMENT <input checked="" type="checkbox"/> MINOR MODIFICATION <input type="checkbox"/> SIGNIFICANT MODIFICATION IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION
FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.		
Section I. General		
1. Name of applicant (as registered with the WV Secretary of State's Office): Allnex USA Inc.		2. Federal Employer ID No. (FEIN): 37-1705164
3. Name of facility (if different from above): Willow Island Plant		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH
5A. Applicant's mailing address: Allnex USA Inc. 252 Heilman Avenue Belmont, WV 26134		5B. Facility's present physical address: Allnex USA Inc. 252 Heilman Avenue Belmont, WV 26134
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES , provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – If NO , provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .		
7. If applicant is a subsidiary corporation, please provide the name of parent corporation:		
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES , please explain: The applicant leases the site. – If NO , you are not eligible for a permit for this source.		
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Chemical manufacturing plant		10. North American Industry Classification System (NAICS) code for the facility: 325199
11A. DAQ Plant ID No. (for existing facilities only): 073-00030	11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-2473J	
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.		

<p>12A.</p> <ul style="list-style-type: none"> For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. <p>From Interstate 77, Exit 179, take State Route 2, north approximately 10 miles. Plant site on left (river side) of State Route 2, two miles south of Belmont, WV.</p>		
12.B. New site address (if applicable): NA	12C. Nearest city or town: Belmont	12D. County: Pleasants
12.E. UTM Northing (KM): 4,356.34	12F. UTM Easting (KM): 473.66	12G. UTM Zone: 17
<p>13. Briefly describe the proposed change(s) at the facility: Applicant proposes to reinstate an emission point MEC-001 for the existing Methanol Storage Tank (V516); add emission limits for emission point MEC-001; make in-kind equipment replacements for existing equipment items Circulated Methanol Coolers (E036A/B) and Refining Vacuum System (J010/J110); typo correction in R13-2473J section 4.4.6.c; voluntarily revise data collection frequency from daily to at least once every 15 minutes for several existing control devices.</p>		
<p>14A. Provide the date of anticipated installation or change: Upon issuance of permit</p> <ul style="list-style-type: none"> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / / 		<p>14B. Date of anticipated Start-Up if a permit is granted: Soon after issuance of permit</p>
<p>14C. Provide a Schedule of the planned Installation of/Change to and Start-Up of each of the units proposed in this permit application as Attachment C (if more than one unit is involved).</p>		
<p>15. Provide maximum projected Operating Schedule of activity/activities outlined in this application: Hours Per Day 24 Days Per Week 7 Weeks Per Year 52</p>		
<p>16. Is demolition or physical renovation at an existing facility involved? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>		
<p>17. Risk Management Plans. If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your Risk Management Plan (RMP) to U. S. EPA Region III.</p>		
<p>18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (<i>if known</i>). Provide this information as Attachment D.</p>		
<p>Section II. Additional attachments and supporting documents.</p>		
<p>19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p>		
<p>20. Include a Table of Contents as the first page of your application package.</p>		
<p>21. Provide a Plot Plan, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as Attachment E (Refer to Plot Plan Guidance).</p> <ul style="list-style-type: none"> Indicate the location of the nearest occupied structure (e.g. church, school, business, residence). 		
<p>22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F.</p>		
<p>23. Provide a Process Description as Attachment G.</p> <ul style="list-style-type: none"> Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable). 		
<p>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</p>		

24. Provide Material Safety Data Sheets (MSDS) for all materials processed, used or produced as Attachment H . – For chemical processes, provide a MSDS for each compound emitted to the air.
25. Fill out the Emission Units Table and provide it as Attachment I .
26. Fill out the Emission Points Data Summary Sheet (Table 1 and Table 2) and provide it as Attachment J .
27. Fill out the Fugitive Emissions Data Summary Sheet and provide it as Attachment K .
28. Check all applicable Emissions Unit Data Sheets listed below: <input type="checkbox"/> Bulk Liquid Transfer Operations <input type="checkbox"/> Haul Road Emissions <input type="checkbox"/> Quarry <input type="checkbox"/> Chemical Processes <input type="checkbox"/> Hot Mix Asphalt Plant <input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities <input type="checkbox"/> Concrete Batch Plant <input type="checkbox"/> Incinerator <input type="checkbox"/> Grey Iron and Steel Foundry <input type="checkbox"/> Indirect Heat Exchanger <input type="checkbox"/> Storage Tanks <input checked="" type="checkbox"/> General Emission Unit, specify: E036A/B and J010/J110
Fill out and provide the Emissions Unit Data Sheet(s) as Attachment L .
29. Check all applicable Air Pollution Control Device Sheets listed below: <input type="checkbox"/> Absorption Systems <input type="checkbox"/> Baghouse <input type="checkbox"/> Flare <input type="checkbox"/> Adsorption Systems <input type="checkbox"/> Condenser <input type="checkbox"/> Mechanical Collector <input type="checkbox"/> Afterburner <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Wet Collecting System <input type="checkbox"/> Other Collectors, specify:
Fill out and provide the Air Pollution Control Device Sheet(s) as Attachment M .
30. Provide all Supporting Emissions Calculations as Attachment N , or attach the calculations directly to the forms listed in Items 28 through 31.
31. Monitoring, Recordkeeping, Reporting and Testing Plans. Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as Attachment O . ➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.
32. Public Notice. At the time that the application is submitted, place a Class I Legal Advertisement in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and Example Legal Advertisement for details). Please submit the Affidavit of Publication as Attachment P immediately upon receipt.
33. Business Confidentiality Claims. Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ➤ If YES , identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's " Precautionary Notice – Claims of Confidentiality " guidance found in the General Instructions as Attachment Q .

Section III. Certification of Information

34. Authority/Delegation of Authority. Only required when someone other than the responsible official signs the application. Check applicable Authority Form below: <input type="checkbox"/> Authority of Corporation or Other Business Entity <input type="checkbox"/> Authority of Partnership <input type="checkbox"/> Authority of Governmental Agency <input type="checkbox"/> Authority of Limited Partnership Submit completed and signed Authority Form as Attachment R . All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.
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35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE Sebastian Barbarito DATE: APRIL 20, 2016
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Sebastian Barbarito		35C. Title: Site Manager
35D. E-mail: Gus.Barbarito@allnex.com	36E. Phone: (304) 665-1641	36F. FAX: (304) 665-1621
36A. Printed name of contact person (if different from above): Dave Lieving		36B. Title: Sr. Operations Engineer
36C. E-mail: Dave.Lieving@allnex.com	36D. Phone: (304) 665-1644	36E. FAX: (304) 665-3727

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input checked="" type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Attachment A
Business Certificate

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**ALLNEX USA INC.
1 HEILMAN AVE
WILLOW ISLAND, WV 26134-9732**

BUSINESS REGISTRATION ACCOUNT NUMBER: **2280-9647**

This certificate is issued on: **02/7/2014**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

ATTACHMENT G – PROCESS DESCRIPTION

Allnex requests to make some minor modifications to air permit R13-2473J for its existing Willow Island, WV Plant, designated by DAQ as facility ID# 073-00030.

Allnex proposes to make the following changes:

- Addition of Emission Point MEC-001: Allnex would like to reinstate an emission point for the existing Methanol Storage Tank (V516). This emission point (MEC-001) was previously removed from the permit after a vapor balancing system was installed to control vapors vented from the tank when unloading methanol from a rail car or tank truck. At that time, there was no need to be able to vent through the conservation vent. Allnex would now like to occasionally pump methanol to the storage tank from the MeC and Methanol Recovery processes. Doing so would cause the tank to vent through the conservation vent (MEC-001). Methanol would be transferred from two process vessels. During operation of the MeC process, methanol would be pumped from the Methanol Feed Tank (V518). Methanol would be pumped from the MeC Condenser Receiver (V574) during operation of the Methanol Recovery process. In both cases, the transfers would be intermittent. This change would result in a small increase in annual VOC emissions. This change would not affect the unloading of methanol from rail cars and tank trucks; the vapor return system would still be used as required by our current permit.
- Allnex would like to replace in-kind the following two existing equipment items:
 - The existing Circulated Methanol Coolers (E036A/B) would be replaced with like-kind coolers of the same capacity (200,000 BTU/hr). The new coolers would continue to have no direct vent to the atmosphere.
 - The existing Refining Vacuum System (J010/J110) would be replaced with a like-kind vacuum system of the moderately higher capacity (742 cfm). The new vacuum system would continue to vent to the atmosphere via control devices C102/E120 and vent at emission point UAM-001. The pump capacity increase will not result in any change in emissions.
- Typo correction in section 4.4.6.c.
- Changes to Appendix A – Emission Limits to add emission limits for emission point MEC-001.
- Changes to Appendix B – Control Devices Parametric Monitoring to voluntarily revise data collection frequency from daily to at least once every 15 minutes for several existing control devices. Allnex is proposing this change to reflect its enhanced process data collection system.

Please see Allnex's suggested revisions to R13-2473J provided in Appendix 1 – Proposed Draft Revisions to R13-2473J.

Attachment I Emission Units Table (includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)						
Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
V516	MEC-001	Methanol Storage Tank	1988/ 2016	17,500 gallons	Modification (add vent point to existing storage tank)	None for vent MEC-001
E036A/B	No direct vent	Circulated Methanol Coolers	2016	200,000 BTU/hr	Modification (like-kind replacement)	None
J010/ J110	UAM-001	Refining Vacuum System	2016	742 cfm	Modification (like-kind replacement)	C102/ E120

¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.
² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.
³ New, modification, removal
⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment J EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data															
Emission Point ID No. <i>(Must match Emission Units Table & Plot Plan)</i>	Emission Point Type ¹	Emission Unit Vented Through This Point <i>(Must match Emission Units Table & Plot Plan)</i>		Air Pollution Control Device <i>(Must match Emission Units Table & Plot Plan)</i>		Vent Time for Emission Unit <i>(chemical processes only)</i>		All Regulated Pollutants - Chemical Name/CAS ³ <i>(Speciate VOCs & HAPS)</i>	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase <i>(At exit conditions, Solid, Liquid or Gas/Vapor)</i>	Est. Method Used ⁶	Emission Concentration ⁷ <i>(ppmv or mg/m³)</i>
									lb/hr	ton/yr	lb/hr	ton/yr			
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)								
MEC-001	Conservation vent	V516	Tank	NA	None	Varies	Varies	VOC Methanol (67-56-1)	4.7 4.6	0.1 0.1	4.7 4.6	0.1 0.1	Gas/Vapor	EE	NA

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

- ¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- ² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- ³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.
- ⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- ⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- ⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- ⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
MEC-001	0.75	ambient	Varies	Varies	633	21	4,356.66	473.37

¹ Give at operating conditions. Include inerts.

² Release height of emissions above ground level.

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): E036A/B

<p>1. Name or type and model of proposed affected source:</p> <p>Name: Circulated Methanol Coolers Description: 200,000 BTU/hr capacity, used to chill methanol for the methanol spray condenser (V032). Manufacturer: Gaspar Inc. Model number: N/A - Serial numbers 41823-1, 41823-2</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>N/A - Methanol Cooler.</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>N/A - Methanol Cooler.</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>N/A</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable): N/A					
(a) Type and amount in appropriate units of fuel(s) to be burned:					
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:					
(c) Theoretical combustion air requirement (ACF/unit of fuel):					
@		°F and		psia.	
(d) Percent excess air:					
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:					
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:					
(g) Proposed maximum design heat input:					× 10 ⁶ BTU/hr.
7. Projected operating schedule:					
Hours/Day	24	Days/Week	7	Weeks/Year	42

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used: N/A – no direct vent.			
@	ambient	°F and	ambient psia
a.	NO _x	lb/hr	grains/ACF
b.	SO ₂	lb/hr	grains/ACF
c.	CO	lb/hr	grains/ACF
d.	PM ₁₀	lb/hr	grains/ACF
e.	Hydrocarbons	lb/hr	grains/ACF
f.	VOCs	lb/hr	grains/ACF
g.	Pb	lb/hr	grains/ACF
h.	Specify other(s)	lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

<p>9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.</p>	
<p>MONITORING Per R13-2473J permit terms.</p>	<p>RECORDKEEPING Per R13-2473J permit terms.</p>
<p>REPORTING Per R13-2473J permit terms.</p>	<p>TESTING Per R13-2473J permit terms.</p>
<p>MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.</p> <p>RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.</p> <p>REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.</p> <p>TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty</p> <p>None.</p>	

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): J010/J110

<p>1. Name or type and model of proposed affected source:</p> <p>Name: Refining Vacuum System Description: 742 cfm air displacement capacity, used to maintain vacuum on the first pass columns (C002) and second pass column (C120). Manufacturer: Busch LLC Model number: Cobra NCO603.B</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>N/A</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>N/A</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>N/A</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable): N/A					
(a) Type and amount in appropriate units of fuel(s) to be burned:					
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:					
(c) Theoretical combustion air requirement (ACF/unit of fuel):					
@		°F and		psia.	
(d) Percent excess air:					
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:					
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:					
(g) Proposed maximum design heat input:					× 10 ⁶ BTU/hr.
7. Projected operating schedule:					
Hours/Day	24	Days/Week	7	Weeks/Year	42

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used: Vents via UAM-001.			
@	ambient	°F and	ambient psia
a.	NO _x		lb/hr grains/ACF
b.	SO ₂		lb/hr grains/ACF
c.	CO		lb/hr grains/ACF
d.	PM ₁₀		lb/hr grains/ACF
e.	Hydrocarbons		lb/hr grains/ACF
f.	VOCs	11.5	lb/hr grains/ACF
g.	Pb		lb/hr grains/ACF
h.	Specify other(s)		
	Methanol	0.2	lb/hr grains/ACF
			lb/hr grains/ACF
			lb/hr grains/ACF
			lb/hr grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

<p>9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.</p>	
<p>MONITORING</p> <p>Per R13-2473J permit terms.</p>	<p>RECORDKEEPING</p> <p>Per R13-2473J permit terms.</p>
<p>REPORTING</p> <p>Per R13-2473J permit terms.</p>	<p>TESTING</p> <p>Per R13-2473J permit terms.</p>
<p>MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.</p> <p>RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.</p> <p>REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.</p> <p>TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.</p>	
<p>10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty</p> <p>None.</p>	

Attachment N

Supporting Emissions Calculations

Maximum hourly emissions resulting from the two types of process transfers were calculated using Emission Master modeling software (version 7.6.1.12):

1. Maximum VOC emissions from emission point MEC-001 when transferring methanol from the MeC process are 4.7 lb/hr; while methanol emissions are 4.6 lb/hr. The VOCs are primarily methanol with a small amount of MeC. See attached Emission Master report (Transfer from MeOH feed tank to MeOH storage tank) for the basis of calculating maximum hourly VOC/methanol emissions from emission point MEC-001.
2. Maximum VOC/methanol emissions from emission point MEC-001 when transferring methanol from the Methanol Recovery process are 0.64 lb/hr. The VOCs are all methanol. See attached Emission Master report (Transfer from MeC condenser receiver to MeOH storage tank) for the basis of calculating maximum hourly VOC/methanol emissions from emission point MEC-001.

The estimated maximum annual emissions are small (estimated at not to exceed 0.1 ton/year of total VOC and 0.1 ton/year of methanol for each of the two process liquid transfer operations) because the transfers will be intermittent and for short periods of time.

Attachment N Supporting Emissions Calculations

Emission Master 7.6.1.12

7:23:15 AM, 4/14/2016

page 1

C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeOH feed tank to MeOH storage tank.emm

Title Page

Product: Methanol
Process: MeC Process
Process Cycle Time: 1.0 hr
Evaluation Date: 4/11/2016
File Name: C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeOH feed tank to MeOH storage tank.emm
Connected Database: Emaster_Urethanes.mdb = C:\Program Files\Emission Master\Emaster_Urethanes
Calculation type: MACT98
Condenser Calc. type: Single Stage
Charge Calc. type: Average Composition
Last Saved User: lievingd
Last Saved Time: 7:23:00 AM, 4/14/2016
Comment:

Defined Activities

- 1) [Charge] Transfer methanol from methanol feed tank V518 to methanol storage tank V516.

Attachment N Supporting Emissions Calculations

Emission Master 7.6.1.12

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page 2

C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeOH feed tank to MeOH storage tank.emm

1: Filling Activity

Recipe Step: 1

Title: Transfer methanol from methanol feed tank V518 to methanol storage tank V516.

Process Segment: 1

Start Time: 0.0 hr

Elapsed Time: 1.0 hr

Vent ID: MEC-001

Noncondensable: Nitrogen @ 0.0 scfh Saturation: 100.0%

Pressure: 889.0 mmHg

Initial Volume: 4238.9662 gal Charged Volume: 2242.3218 gal

Final Volume: 6481.2879 gal

Comment:

Vessel Name: V516

Void Vol.: 17514.87 gal Work Vol.: 15750.0 gal

No Control Devices

Initial Contents -

[Liquid Phase]	Weight (lb)	Pure-Vp (mm Hg)	W[i]	X[i]	A[i]	X*Vp*A (mm Hg)
Methanol	28000.0	126.8848	1.0	1.0	1.0	126.8848

Inlet Stream -

Mixture Name: Feed Tank Methanol

[Liquid Phase]	Weight (lb)	Pure-Vp (mm Hg)	W[i]	X[i]	A[i]	X*Vp*A (mm Hg)
Ammonia2	675.0	8826.7845	4.5e-002	8.404e-002	1.0	741.8031
Methanol	13125.0	163.8385	0.875	0.8686	1.0	142.3133
Methyl Carbamate	1050.0	0.89348	7.0e-002	2.969e-002	1.0	2.6524e-002
Water	150.0	31.6518	1.0e-002	1.766e-002	1.0	0.55882

Final Contents 6481.2879 gal 43000.0 lb 25.0 °C

[Liquid Phase]	Weight (lb)	Pure-Vp (mm Hg)	W[i]	X[i]	A[i]	X*Vp*A (mm Hg)
Ammonia2	675.0	7575.6774	1.57e-002	2.946e-002	1.0	223.1504
Methanol	41125.0	126.8848	0.9564	0.954	1.0	121.0418
Methyl Carbamate	1050.0	0.63309	2.442e-002	1.04e-002	1.0	6.5873e-003
Water	150.0	23.5753	3.488e-003	6.188e-003	1.0	0.14589

Attachment N Supporting Emissions Calculations

Emission Master 7.6.1.12

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page 3

C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeOH feed tank to MeOH storage tank.emm

Emissions From Vessel: V516

	Effective Vp	Moles	Weight	Rate
[Non Condensables]	(mm Hg)	(lb-mole)	(lb)	(lb/hr)
Nitrogen	4.2983	4.3262e-003	0.12119	0.12119
[Condensables]	(mm Hg)	(lb-mole)	(lb)	(lb/hr)
Ammonia2	741.8031	0.7343	12.5059	12.5059
Methanol	142.3133	0.14087	4.5136	4.5136
Methyl Carbamate	2.6524e-002	2.6255e-005	1.9692e-003	1.9692e-003
Water	0.55882	5.5317e-004	9.9655e-003	9.9655e-003

Attachment N Supporting Emissions Calculations

Emission Master 7.6.1.12

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page 4

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Summary Page

Emissions for MEC-001

	CAS	Avg. Rate	Max. Rate	Total Weight
Ammonia2	7664-41-7	12.5059 lb/hr	12.5059 lb/hr	12.5059 lb
Methanol	67-56-1	4.5136 lb/hr	4.5136 lb/hr	4.5136 lb
Methyl Carbamate	598-55-0	1.9692e-003 lb/hr	1.9692e-003 lb/hr	1.9692e-003 lb
Nitrogen	-	0.12119 lb/hr	0.12119 lb/hr	0.12119 lb
Water	-	9.9655e-003 lb/hr	9.9655e-003 lb/hr	9.9655e-003 lb

Total emissions for all vents:

	CAS	Avg. Rate	Max. Rate	Total Weight
Ammonia2	7664-41-7	12.5059 lb/hr	12.5059 lb/hr	12.5059 lb
Methanol	67-56-1	4.5136 lb/hr	4.5136 lb/hr	4.5136 lb
Methyl Carbamate	598-55-0	1.9692e-003 lb/hr	1.9692e-003 lb/hr	1.9692e-003 lb
Nitrogen	-	0.12119 lb/hr	0.12119 lb/hr	0.12119 lb
Water	-	9.9655e-003 lb/hr	9.9655e-003 lb/hr	9.9655e-003 lb

Attachment N Supporting Emissions Calculations

Emission Master 7.6.1.12 7:19:47 AM, 4/14/2016 page 1
C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeC condenser receiver to MeOH storage tank.emm

Title Page

Product: Methanol
Process: Methanol Recovery
Process Cycle Time: 1.0 hr
Evaluation Date: 4/11/2016
File Name: C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeC condenser receiver to MeOH storage tank.emm
Connected Database: Emaster_Urethanes.mdb = C:\Program Files\Emission Master\Emaster_Urethanes
Calculation type: MACT98
Condenser Calc. type: Single Stage
Charge Calc. type: Average Composition
Last Saved User: lievingd
Last Saved Time: 7:19:42 AM, 4/14/2016
Comment:

Defined Activities

- 1) [Charge] Transfer methanol from MeC condenser receiver V574 to methanol storage tank V516 during methanol recovery.

Attachment N Supporting Emissions Calculations

Emission Master 7.6.1.12

7:19:47 AM, 4/14/2016

page 2

C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeC condenser receiver to MeOH storage tank.emm

1: Filling Activity

Recipe Step: 1

Title: Transfer methanol from MeC condenser receiver V574 to methanol storage tank V516 during methanol recovery.

Process Segment: 1

Start Time: 0.0 hr

Elapsed Time: 1.0 hr

Vent ID: MEC-001

Noncondensable: Nitrogen @ 0.0 scfh Saturation: 100.0% Pressure: 889.0 mmHg

Initial Volume: 9484.6868 gal Charged Volume: 348.2008 gal Final Volume: 9832.8876 gal

Comment:

Vessel Name: V516

Void Vol.: 17514.87 gal Work Vol.: 15750.0 gal

No Control Devices

Initial Contents -

	Weight (lb)	Pure-Vp (mm Hg)	W[i]	X[i]	A[i]	X*Vp*A (mm Hg)
[Liquid Phase] Methanol	62650.0	126.8848	1.0	1.0	1.0	126.8848

Inlet Stream -

Mixture Name: Methanol

	Weight (lb)	Pure-Vp (mm Hg)	W[i]	X[i]	A[i]	X*Vp*A (mm Hg)
[Liquid Phase] Methanol	2300.0	87.2449	1.0	1.0	1.0	87.2449

Final Contents 9832.8876 gal 64950.0 lb 25.0 °C

	Weight (lb)	Pure-Vp (mm Hg)	W[i]	X[i]	A[i]	X*Vp*A (mm Hg)
[Liquid Phase] Methanol	64950.0	126.8848	1.0	1.0	1.0	126.8848

Emissions From Vessel: V516

	Effective Vp (mm Hg)	Moles (lb-mole)	Weight (lb)	Rate (lb/hr)
[Non Condensables] Nitrogen	762.1152	0.11911	3.3368	3.3368
[Condensables] Methanol	126.8848	1.9831e-002	0.63539	0.63539

Attachment N

Supporting Emissions Calculations

Emission Master 7.6.1.12

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page 3

C:\Documents and Settings\lievingd\My Documents\Emission Master\Transfer from MeC condenser receiver to MeOH storage tank.emm

Summary Page

Emissions for MEC-001

	CAS	Avg. Rate	Max. Rate	Total Weight
Methanol	67-56-1	0.63539 lb/hr	0.63539 lb/hr	0.63539 lb
Nitrogen	-	3.3368 lb/hr	3.3368 lb/hr	3.3368 lb

Total emissions for all vents:

	CAS	Avg. Rate	Max. Rate	Total Weight
Methanol	67-56-1	0.63539 lb/hr	0.63539 lb/hr	0.63539 lb
Nitrogen	-	3.3368 lb/hr	3.3368 lb/hr	3.3368 lb

ATTACHMENT P – Public Notice Class I Legal Advertisement

Allnex USA Inc. will submit the required Class I legal advertisement to a local newspaper and will forward the original affidavit of publication to DAQ. The notice will be published no earlier than five (5) working days of receipt by DAQ of this application. The original affidavit of publication will be received by DAQ no later than the last day of the public comment period. The anticipated text of the legal ad to be published in *The St. Marys Oracle/Pleasants County Leader* (St. Marys, WV) is as follows:

AIR QUALITY PERMIT NOTICE Notice of Application

Notice is given that Allnex USA Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Rule 13 Modification Permit for its existing Willow Island Plant located on State Route 2, two miles south of Belmont, in Pleasants County, West Virginia at latitude 39.35613 and longitude -81.30569.

The applicant estimates, as a result of the proposed Modification, the facility's potential to discharge Regulated Air Pollutants will be increased as follows:

Regulated Pollutant	Increased Potential Annual Emissions in tons per year (tpy)
Total Volatile Organic Compounds	0.1
Total Regulated Hazardous Air Pollutants	0.1

Operations at the existing facility are on-going. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 20th day of April, 2016.

By: Sebastian Barbarito,
Site Manager
Allnex USA Inc.
252 Heilman Avenue
Belmont, WV 26134

Attachment S
Title V Permit Revision Information

1. New Applicable Requirements Summary	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS (Subpart(s) _____)	<input checked="" type="checkbox"/> Section 112(d) MACT standards (Subpart(s) <u>FFFF</u>)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) ⁽¹⁾
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)
⁽¹⁾ If this box is checked, please include Compliance Assurance Monitoring (CAM) Form(s) for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why Compliance Assurance Monitoring is not applicable:	

2. Non Applicability Determinations
List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination. None
<input type="checkbox"/> Permit Shield Requested (not applicable to Minor Modifications)
<i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i>

3. Suggested Title V Draft Permit Language

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision? Yes No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

Allnex is not required to submit a RMP, therefore Allnex requests that Title V permit section 3.1.8. be revised as follows:

3.1.8. Risk Management Plan. ~~This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71. Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.~~

4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
R13-2473J	11/21/2014	

5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
None		

6. Change in Potential Emissions

Pollutant	Change in Potential Emissions (+ or -), TPY
CO	
NO _x	
PM ₁₀	
SO ₂	
VOC	+0.1
CO ₂ e	
Total HAP (Methanol)	+0.1

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

7. Certification For Use Of Minor Modification Procedures (Required Only for Minor Modification Requests)

Note: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:

- i. Proposed changes do not violate any applicable requirement;
- ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;
- iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;
- v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;
- vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;

Notwithstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of the State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V operating permit issued under 45CSR30.

Pursuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use of Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor permit modification procedures are hereby requested for processing of this application.

(Signed):	 <i>(Please use blue ink)</i>	Date:	APRIL / 20 / 16 <i>(Please use blue ink)</i>
Named (typed):	Sebastian Barbarito	Title:	Site Manager

Note: Please check if the following included (if applicable):

- Compliance Assurance Monitoring Form(s)
- Suggested Title V Draft Permit Language

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Appendix 1 – Proposed Draft Revisions to R13-2473J**1.0. Emission Units**

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
C002 ⁴	No direct vent	First Pass Column	1974	8,200 gallons	None
C020 ⁴		Water Stripper	1987	1,800 gallons	None
C030 ⁴		MeC Stripper	1974	9,000 gallons	None
C507 ⁴		Trimer Removal Column	1989	596 gallons	None
E007 ⁴		First Pass Overhead Condenser	1987	700,000 BTU/hr	None
E008 ⁴		First Pass Spray Condenser	1987	28,000 BTU/hr	None
E013 ⁴		Storage Tank Cooler	1999	50 Tons	None
E015 ⁴		Cracking Column Overhead Condenser	2003	1.9 MMBTU/hr	None
E016 ⁴		Catalyst Heater	1996	152,000 BTU/hr	None
E021A/B ⁴		Circulated Liquid Coolers	1987	150,000 BTU/hr	None
E035 ⁴		TMXDI Condenser	1987	269,000 BTU/hr	None
E036A/B ⁴		Circulated Methanol Coolers	1987 2016	200,000 BTU/hr	None
E039 ⁴		Product Cooler	1974	168,000 BTU/hr	None
E051 ⁴		Evaporator Condenser	1996	196 ft ²	None
E107 ⁴		Water Cooled Oil Cooler	2010	4.77 MMBTU/hr	None
E525 ⁴		Methanol Column Cooler	1987	971,000 BTU/hr	None
E528 ⁴		MeC Letdown Condenser	1987	1.4 MMBTU/hr	None
E538 ⁴		Methanol Column Feed Cooler	1987	4.5 MMBTU/hr	None
E541 ⁴		Methanol Column Cooler	1975	1.34 MMBTU/hr	None
E570 ⁴		MeC Condenser	1987	1.0 MMBTU/hr	None
E580 ⁴		Methanol Circulating Cooler	1987	275,000 BTU/hr	None
H026 ⁴		Chilled Oil Refrigeration System	1987	47 tons	None
H027 ⁴		Chilled Oil Refrigeration System	2011	160 tons	None
H040 ⁴		Wiped Film Evaporator	1996	53 ft ²	None
H055 ⁴	Hot Oil Heater	1996	300 KW	None	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
H550 ⁴	No direct vent	MeC Evaporator	1987	1.0 MMBTU/hr	None
R010 ⁴		Cracking Reactor and Column	1987	5,900 gallons	None
V001 ⁴		Secondary MeC Stripper	1987	450 gallons	None
V161 ⁴		Evaporator Bottoms Receiver	1996	100 gallons	None
V420 ⁴		Cracking Column Secondary Condenser	1987	560 gallons	None
V513 ⁴		Bottoms Neutralization Tank	1975	10,000 gallons	None
V516 ⁴		Methanol Storage Tank (transfers from railcars or tank trucks)	1988	17,500 gallons	Vapor return line B001
V530 ⁴		MeC Reactor	1975	3,350 gallons	None
V540 ⁴		Methanol Column Secondary Condenser	2010	350,000 BTU/hr	None
V552 ⁴		Evaporator Bottoms Pot	1987	80 gallons	None
V003	DIP-001	Reactant Storage Tank	1974	525,000 gallons	None
V516	MEC-001	Methanol Storage Tank (transfers from process vessels)	1988	17,500 gallons	None
V508	MEC-002	Urea/Methanol Slurry Tank	1974	8,300 gallons	E522
V518		Methanol Feed Tank	1974	6,300 gallons	
M507	MEC-003	Urea Rotary Air Lock	1987	NA	None
U001		TMXDI Product Drumming	1988	28 drums/hr	
V514	MEC-004	Bottoms Heavies Box	NA	350 gallons	None
V554	MEC-005	Evaporator Bottoms Receiver	1974	3,325 gallons	None
V500A-C	MEC-006	Recovered Methanol Rail Cars	NA	20,000 gallons	V582
V510		By-product Methanol Rail Car	NA	20,000 gallons	
V574		MeC Condenser Receiver	1987	140 gallons	
V599A-E		Crude MeC Rail Cars	NA	20,000 gallons	
V535	MEC-007	Intermediate Product Receiver	1975 Modified 7/14/1987	11,000 gallons	None
V578		Methanol Spray Condenser Receiver	1987	200 gallons	
V577	MEC-008	Methanol Spray Condenser	1987	800 gallons	P590A/B

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
C539	MEC-009	Methanol Column	1975	5,100 gallons	H599
E540	MEC-009	Methanol Secondary Condenser	2010	149.2 ft ²	H599
V584	MEC-010	Crude MeC Storage Tank	1975 Modified 3/15/87	18,000 gallons	V583
H530	MEC-011	Hot Oil Heater	1987	21.8 MMBTU/hr	None
V515	MEC-012	Flare Purge Tote	2008	300 gallons	None
U002	MEC-013	Drumming Station	2011	12 Drums/hr	None
V085A	TMI-002	Fresh Methanol Tank Wagon	NA	5,000 gallons	None
V060A	TMI-003	Finished TMU Tank Wagon	NA	5,000 gallons	None
V060B	TMI-005	Finished TMU Tank Wagon	NA	5,000 gallons	None
V102	TMX-003	Caustic Storage Tank	1986	6,570 gallons	None
V107	TMX-004	Sulfuric Acid Storage Tank	1987	6,570 gallons	None
C120	UAM-001	Second Pass Column	1974	7,100 gallons	C102/E120
E024		Second Pass Overhead Condenser	1987	256 ft ²	
J001/J010 ²		Production Vacuum System	1987	500 cfm	
J010/J110 ¹		Refining Vacuum System	1987 2016	500 742 cfm	
P001A/B		Catalyst Recovery Vacuum System	1996	400 cfm	
R001 ²		Addition Reactor (during TMI to TMU production)	1987	11,900 gallons	
V009 ¹		First Pass Overhead Receiver	1987	550 gallons	
V004		Catalyst Feed Tank	1987	1,250 gallons	
V005		First Pass Spray Condenser	1987	510 gallons	
V010 ⁵		Methanol Surge Tank	1974 Modified 10/2/87	10,700 gallons	
V012		Recovered Catalyst Storage Tank	1975 Modified 11/18/99	15,000 gallons	
V016 ²		Crude TMXDU Surge Tank (during TMI to TMU production)	1974	19,000 gallons	
V019 ¹		TMI Surge Tank/Crude TMXDI Tank	1974 Modified 7/23/87	11,400 gallons	
V022		Circulating Liquid Tank	1987	535 gallons	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device	
V026 ³		Second Pass Column Overhead Receiver	1987	130 gallons	C102/E120	
V032		Methanol Spray Condenser	1987	3,100 gallons		
V033 ¹	UAM-001	Recovered Methanol Tank	1987	1,977 gallons		
V036		TMXDI Product Receiver	1987	500 gallons		
V039 ¹		Crude TMI Storage Tank	1995	100,000 gallons		
V059 ³		Supercrude TMI Storage Tank	1976 Modified 3/22/00	50,000 gallons		
V080A		Secondary Condensate Tank Wagon	NA	5,000 gallons		
V080B ³		Recovered TMXDI Tank Wagon (during TMI Distillation)	NA	5,000 gallons		
V085 ¹		Fresh DMF Tank Wagon	NA	5,000 gallons		
V085B ²		Heavy Polymer Tank Wagon	NA	5,000 gallons		
V110A ³		Fourth Pass Bottoms Tank Wagon	NA	5,000 gallons		
V110B ³		Fifth Pass Bottoms Tank Wagon	NA	5,000 gallons		
V110C ³		Sixth Pass Overheads Tank Wagon	NA	5,000 gallons		
V112		Cracking Column Overheads Receiver	1987	300 gallons		
V116 ¹		First Pass Circulating Liquid Tank	1988	220 gallons		
V150		Methanol Receiver	1996	20 gallons		
V152		Distillate Receiver	1996	300 gallons		
V185 ¹		Spent DMF Tank Wagon	NA	5,000 gallons		
E022		UAM-002	Water Stripper Overheads Condenser	1987	12 MMBTU/hr	P051A/B
E032			MeC Stripper Overheads Receiver/Condenser	1974	1,300 gallons	
V555	UAM-002	DMF Waste Tank Wagon	2008	5,000 gallons	C102/E120/ P051A/B	
V560		Recovered DMF Tank Wagon	2008	5,000 gallons		
R001	UAM-003	Addition Reactor (during TMXDI production)	1987	11,900 gallons	K360	
V016		Crude TMXDU Surge Tank (during TMXDI production)	1974 Modified 7/23/87	19,000 gallons		
V024		Water Stripper Overhead Receiver	1987	130 gallons		
V160	USM-012	Standby Storage Tank (Inactive per R13-2473J, October 9, 2014)	1976 Modified 7/23/87	37,600 gallons	None	
V006	UAM-004	TMXDU Purge Container	NA	400 gallons	None	
V105	UAM-005	Sulfuric Acid Calibration Tank	1987	50 gallons	None	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V038	UAM-006	Recovered MeC Storage Tank	1974 Modified 7/27/87	13,000 gallons	None
V007	UAM-007	Water Stripper TMXDI Overheads Tank	2008	5,000 gallons	None
V550	UAM-007	Water Stripper DMF Overheads Tank Wagon	2008	5,000 gallons	None
V401	UAM-008	Water Stripper Overheads Storage Tank	1979	10,235 gallons	None
V080B	UCM-005	Recovered TMXDI Tank Wagon (during TMXDI production)	NA	5,000 gallons	None
V121A	UCM-007	Catalyst Decanting Tank Wagon	NA	5,000 gallons	None
V121B/C		Bottoms Tank Wagons	NA	5,000 gallons	None
V101	USM-003	TMXDI Storage Tank	1974	12,600 gallons	None
V201	USM-004	TMXDI Storage Tank	1974	10,000 gallons	None
V301	USM-005	TMXDI Storage Tank	1974	12,600 gallons	None
V020	USM-006	TMI Storage Tank	1975	4,000 gallons	None
V002	USM-007	Cooling Oil Storage Tank	1987	6,600 gallons	None
V320	USM-008	Chilled Oil Surge Tank	1974 Modified 7/23/87	17,000 gallons	None
V132	USM-010	Hot Oil Storage/Expansion Tank	1974	18,000 gallons	None
V031	USM-011	Catalyst Storage Tank	1987	6,750 gallons	None
V100	UTM-002	TMXDI Trailer Loading	NA	5,000 gallons	None
V130		Finished TMI Tank Wagon	NA	5,000 gallons	
V501		Crude MeC Tank Wagon	NA	5,000 gallons	
V545		Heavies Tank Wagon	NA	5,000 gallons	

¹ - Can also vent through UAM-002 when TMI to TMU Process or TMI Distillation Process is operating.

² - Can also vent through UAM-002 when TMI to TMU Process is operating.

³ - Can also vent through UAM-002 when TMI Distillation Process is operating.

⁴ - Emission from these emission units vent to another emission unit and do not vent directly to the atmosphere.

⁵ - Can also vent through UAM-002 when DMF Recovery Process is operating.

4.0. Source-Specific Requirements

4.4.6. Records of all monitoring data required by Section 4.2.1 shall be maintained on site as follows:

- c. Missed readings for each scrubber monitoring parameter data element specified in Appendix B shall be recorded and compared to the maximum allowable missed readings limitation in Section 4.1.87. A rolling consecutive twelve (12) month tabulation of missing readings for each scrubber monitoring parameter element shall be maintained on site for a period of no less than five (5) years. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

APPENDIX A (Emission Limits)

Emission Point	Source	Pollutant	Emission Limit	
			pph	tpy
Emission Limits when any Urethanes Manufacturing Unit Process is On-Line				
USM-007	V002	VOC	1.0	0.1
USM-008	V320	VOC	0.1	0.1
USM-010	V132	VOC	0.1	0.3
MEC-003	U001	VOC	0.1	0.1
MEC-011	H530	CO	1.8	7.9
		NO _x	2.2	9.4
		PM	0.2	0.9
		SO ₂	0.1	0.1
		VOC	0.2	0.7
MEC-013	U002	VOC	0.7	0.1
		THAP	0.4	0.1
Emission Limits when TMI to TMU Process is On-Line				
TMI-002	V085A	VOC	0.1	0.10
		THAP	0.1	0.10
TMI-003	V060A	VOC	0.4	0.20
		THAP	0.3	0.15
TMI-005	V060B	VOC	0.4	0.20
		THAP	0.3	0.15
UAM-001 <i>or</i> UAM-002	C102	VOC	2.0	0.90
		THAP	1.8	0.75
Emission Limits when Methanol Recovery Operation is On-Line				
<u>MEC-001</u>	<u>V516</u>	<u>VOC</u> <u>THAP</u>	<u>0.64</u> <u>0.64</u>	<u>0.1</u> <u>0.1</u>
MEC-006	V582, V574, V500A-C	VOC	0.70	0.50
		THAP	0.70	0.50
MEC-007	V578, V535	VOC	0.39	0.30
		THAP	0.39	0.30
MEC-008	P590A/B	VOC	0.10	0.10
		THAP	0.10	0.10
UTM-002	V545	VOC	0.30	0.30
		THAP	0.30	0.20
Emission Limits when DMF Recovery Operation is On-Line				
UAM-002	V555, V560, P051A/B, J001/J101	VOC	0.1	0.1
		THAP	0.1	0.1
UAM-003	V024	VOC	0.1	0.1
		THAP	0.1	0.1

Emission Point	Source	Pollutant	Emission Limit	
			pph	tpy
UAM-007	V550	VOC	0.4	0.1
		THAP	0.4	0.1
UAM-001	V010	VOC	0.1	0.1
		THAP	0.1	0.1
Emission Limits when TMI Distillation Process is On-Line				
UAM-001 <i>or</i> UAM-002	P051A/B, C102/E120	VOC	0.3	0.20
		THAP	0.2	0.10
USM-006	V020	VOC	0.1	0.10
UTM-002	V130	VOC	0.1	0.10
Emission Limits when TMXDI and Crude TMI Production Process is On-Line				
DIP-001	V003	VOC	0.1	0.1
MEC-006	V510, V582	VOC	0.2	0.1
		THAP	0.2	0.1
MEC-010	V583	VOC	0.1	0.4
		THAP	0.1	0.2
TMX-003	V102	PM	0.1	0.1
UAM-001	C102/E120	VOC	1.75	5.6
		THAP	1.75	5.6
UAM-002	P051A/B	VOC	0.6	1.9
		THAP	0.2	0.65
UAM-003	K360	VOC	0.1	0.1
		THAP	0.1	0.1
UAM-004	V006	VOC	0.2	0.1
UAM-006	V038	VOC	0.3	0.8
		THAP	0.1	0.1
UAM-007	V007	VOC	0.6	2.0
		THAP	0.6	2.0
UAM-008	V401	VOC	0.1	0.1
		THAP	0.1	0.1
UCM-005	V080B	VOC	0.1	0.1
UCM-006	V070A/B	VOC	0.1	0.1
UCM-007	V121A-C	VOC	0.2	0.4
USM-003	V101	VOC	0.1	0.1
USM-004	V201	VOC	0.1	0.1
USM-005	V301	VOC	0.1	0.1
USM-011	V031	VOC	0.1	0.1
UTM-002	V100	VOC	0.1	0.1

Emission Point	Source	Pollutant	Emission Limit	
			pph	tpy
Emission Limits when Methyl Carbamate Process is On-Line				
<u>MEC-001</u>	<u>V516</u>	<u>VOC</u> <u>THAP</u>	<u>4.7</u> <u>4.6</u>	<u>0.1</u> <u>0.1</u>
MEC-002	E522, V508	VOC THAP	1.5 0.8	0.52 0.51
MEC-003	M507	PM	1.2	0.47
MEC-004	V514	VOC	0.1	0.01
MEC-005	V554	VOC	0.1	0.01
MEC-006	V599A-E, V574	VOC THAP	0.1 0.1	0.3 0.15
MEC-007	V578, V535	VOC THAP	1.8 1.76	2.2 2.1
MEC-008	P590A/B, V577	VOC THAP	0.6 0.6	2.00 2.00
MEC-009	H599, C539, E540	CO NO _x PM SO ₂ VOC THAP	0.1 0.4 0.1 0.1 7.2 6.1	0.02 1.15 0.01 0.01 25.12 21.30
MEC-010	V584	VOC THAP	0.1 0.1	0.10 0.10
MEC-012	V515	VOC THAP	0.2 0.2	0.7 0.7
UTM-002	V501	VOC THAP	0.2 0.1	0.1 0.1

APPENDIX B – Control Devices Parametric Monitoring

Control Device ID	Description	Applicable Regulations	Emission Group(s)*	Monitoring Parameter	Parameter Value	Data Collection Frequency	Data Averaging Period	Inspection/ Preventative Maintenance Frequency
B001	Vapor Return Line	40 C.F.R. 63, Subpart FFFF – HAP	Methyl Carbamate	NA	NA	NA	NA	Annual
C102	DMF Scrubber	NA	TMI to TMU, TMI Distillation, TMXDI, DMF Recovery	Inlet scrubber liquor flowrate	≥ 6.5 gpm	15 minutes ¹	Calendar daily	Annual
C102	DMF Scrubber	NA	TMI to TMU, TMXDI	Methanol concentration of scrubber liquor ³	≥ 20% by weight	Daily	Calendar daily	Annual
E120	Vent Condenser	NA	TMI to TMU, TMI Distillation, TMXDI, DMF Recovery	Outlet temperature	≤ 0 deg C	15 minutes ¹	Calendar daily	Annual
E522	Methanol Vent Condenser	NA	Methyl Carbamate	Refrigerated oil temperature at the condenser outlet	≤ -7 deg C	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
H599	Flare	45CSR6 –PM; 40 C.F.R. 63, Subpart FFFF – HAP	Methyl Carbamate	Pilot light flameout detection & reignition system	Pilot light flame verification	Continuous	Not Applicable	Annual
K360	Scrubber	NA	TMXDI, DMF Recovery	Inlet water (liquor) flowrate	≥ 2.6 gpm	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
P051A/B	Graham Vacuum Pump	NA	TMXDI, DMF Recovery	Inlet water (liquor) flowrate	≥ 20.0 gpm	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
P590A/B	Water Ring Vacuum Pump	NA	Methyl Carbamate, Methanol Recovery ²	Inlet water (liquor) flowrate	≥ 3.0 gpm	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
V032	Methanol Spray Condenser	NA	TMI to TMU	Recirculated methanol temperature	≤ -6 deg C	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
V032	Methanol Spray Condenser	NA	TMXDI	Recirculated methanol temperature	≤ -4 deg C	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
V577	Methanol Spray Condenser	NA	Methanol Recovery	Recirculated methanol temperature	≤ 6 deg C	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
V582	Scrubber	NA	Methanol Recovery, TMXDI	Inlet water (liquor) flowrate	≥ 2.6 gpm	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual
V583	Scrubber	NA	TMXDI	Inlet water (liquor) flowrate	≥ 2.6 gpm	<u>15 minutes¹</u> <u>Daily</u>	Calendar daily	Annual

*The control device requirements apply when the listed emission groups (s) are operating and venting to the control device.

¹ Data logging required of flow rate at least once every fifteen (15) minutes. However, the permittee may revert to daily data collection if the electronic data historian system is non-functional/being repaired.

² Only required when the water ring vacuum pump is needed to maintain vacuum service during the methanol recovery operation.

³ If the parameter value is ≥ 20%, the DMF scrubbing fluid shall be recharged with fresh DMF.