William F. Durham
Division Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

RE: Renewal & Revision of Title V Permit #R30-00300026-2012 MM01

Mr. Durham:

MAAX US Corp (formerly known as the Aker Plastics Company) owns and operates a reinforced plastic composite bathware manufacturing facility (plant ID # 003-00026) located at 718 Mid Atlantic Parkway in Martinsburg, West Virginia. This facility was reissued a renewed Title V permit-to-operate (permit #R30-00300026-2012) on July 20, 2012. A minor permit modification (MM01) was made to this Title V permit on July 1, 2014. This minor modification incorporated the Pearl process changes authorized under R13-2006D. The current Title V permit will expire on July 20, 2017, and a complete and timely Title V permit-to-operate renewal application is due for submittal no later than six months from the expiration date, which is on or before January 20, 2017.

According to the general instructions for Title V renewal applications provided by the West Virginia Department of Environmental Protection (DEP), the renewal applicant must submit two copies of a renewal application on separate CDs or diskettes (i.e. at least one disc per copy), with the exception of paper hard copies of the area map, plot plan, process flow diagrams, and forms requiring an original signature. The original signature must be submitted in wet blue ink. As instructed, I have enclosed herein two CD diskettes containing the full Title V renewal application in the form of PDF files, and two paper copies of the area map, plot plans, process flow diagrams, and forms requiring my original signature.

Several changes have occurred at the facility since the latest Title V permit was issued in 2012 and then modified in 2014. The most recent and significant change is the elimination of the Pearl acrylic bathware operation and the addition of a new UTILE printed panel operation, which consists of two conjoined UTILE production lines to be built in two phases. The new UTILE lines require new ventilation ductwork and an upgrade to the current Dürr preconcentrator system. These changes were detailed and approved in the most recent revised Rule 13 permit-to-modify for the facility (permit #R13-2006E), which was issued on January 25, 2016 and is enclosed herein. Ed Andrews is the DEP permit engineer who worked on the revised R13 permit.

In October 2015, Frederick Tipane of the DEP Division of Air Quality advised MAAX that the UTILE project was a substantial project and directed MAAX to first apply for a R13 permit modification for the proposed line changes in order to more quickly start construction of the new UTILE lines. Mr. Tipane further suggested that MAAX incorporate the removal of the Pearl line and the UTILE line additions into the next Title V permit renewal at the time of the renewal application,

since the renewal application was due in January 2017 and that would be within a year of the startup of operations of the new UTILE lines or Phase One line in this case.

Accordingly as directed, I have also enclosed a Title V permit revision application form as part of this renewal package. The revision application form is slightly different than the renewal application form, but all of the calculations and attachments are identical to those in this Title V renewal application (which is so noted on the revision form).

To the best of my knowledge, the Martinsburg facility is in full compliance with all applicable requirements. For this reason, Attachment F is unnecessary and is not included in the application package.

According to the latest DAQ R13 permit review, the facility is not subject to the CAM rule so the Attachment H CAM form is not included in the application package.

Please contact me at (304) 263-2525 extension 8405 or our environmental contact, Isabel Boatright, at (877) 438-6229 extension 8463, if you have any questions regarding this application.

Sincerely

James Vander Weide 1/18/2017

James Vander Weide
Plant Manager and designated Responsible Official

w/ enclosures

Title V Permit Renewal & Revision Application for the MAAX US Corp Reinforced Plastic Composite Bathware Manufacturing Facility in Martinsburg, West Virginia

Permit Numbers

R30-00300026-2012 MM01 (issued July 1, 2014)
R13-2006E (issued January 25, 2016)

Submitted by

James Vander Weide
Plant Manager and designated Responsible Official
MAAX US Corporation
Martinsburg Plant
718 Industrial Parkway
Martinsburg, WV 25404

Submitted to

William F. Durham
Division Director
West Virginia Department of Environmental Protection
Division of Air Quality
Title V Permitting Section
601 57th Street SE
Charleston, WV 25304

January 16, 2017

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TITLE V PERMIT APPLICATION CHECKLIST
FOR ADMINISTRATIVE COMPLETENESS

A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.*	
☒	Two signed copies of the application (at least one must contain the original "*Certification*" page signed and dated in blue ink)
☒	Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)
☒	*Table of Contents (needs to be included but not for administrative completeness)
☒	Facility information
☒	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
☒	Area map showing plant location
☒	Plot plan showing buildings and process areas
☒	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
☒	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
☒	Listing of all active permits and consent orders (if applicable)
☒	Facility-wide emissions summary
☒	Identification of Insignificant Activities
☒	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
☒	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
☒	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
☐	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the "Is the device subject to CAM?" question is answered "Yes" on the Air Pollution Control Device Form (ATTACHMENT G)
☒	General Application Forms signed by a Responsible Official
☐	Confidential Information submitted in accordance with 45CSR31

Section 1 – Introduction and Discussion

The facility and manufacturing operations associated with the two main gelcoat bathware lines are unchanged since the last minor modification to the current Title V permit (R30-003 MM01) on July 1, 2014. Specifically, the following items associated with the two gelcoat bathware lines are unchanged:

- All bathware line resin and gelcoat application equipment
- All bathware line dust generation equipment
- The two bathware line dust collectors (DC-1 and DC-2)
- The associated facility space heaters
- The bathware line supply and exhaust ventilation systems
- The Dürr preconcentrator/RTO add-on control system servicing the bathware lines
- The Dürr control system monitoring schemes

The applicable state and federal regulations are also unchanged. The surrounding area is still classified as in attainment for all Criteria air pollutants. The applicable parts of the Composite MACT rule, which was not revised during this period, still apply to the facility. The federal and state regulatory analyses prepared for the last renewal application also still apply to the facility without change.

The following are the significant changes that have occurred since the most recent minor modification of the current Title V permit:

- Pearl acrylic bathware parts are no longer produced at the facility. The Pearl process equipment has been completely removed from the facility.
- New UTILE composite wall panels are now produced at the facility. The panels are presently produced on one of two new production lines that will occupy the old Pearl production area. These UTILE lines are being installed in phases; the first of the two lines is already installed and in operation (Phase One) and the second line is still under construction (Phase Two). MAAX submitted a R13 permit application to remove the Pearl operation and replace it with the UTILE operation on October 29, 2015. The facility was subsequently issued permit R13-2006E to accomplish these changes on January 25, 2016.
- As part of Phase One, the three UTILE gelcoat booth exhaust outlets are now connected to the Dürr control system inlet using new exhaust ductwork and a new intermediary process exhaust fan to boost the booth exhaust airflow.
- The Dürr control system has enough existing control capacity to handle Phase One of the UTILE project without any physical changes or upgrades. Phase Two of the project involves the addition of a fifth Dürr preconcentrator unit to the four existing preconcentrators units in order to upgrade the overall control capacity. This is an upgrade only - the control capacity will increase, but the basic design, operation, and performance of the Dürr control system will not change.

Section 2 – Summary of Proposed Permit Modifications & Corrections

The following changes refer to permit # R30-00300026-2012 MM01 issued on July 1, 2014.

Incorrect company name – should be "MAAX US Corp" to stay consistent with the name that appears on the WV business registration certificate.

Incorrect zip code – the postal service has changed the facility address zip code to 25404.

Incorrect UTM coordinates – should be 246.4 km Easting, 4376.5 km Northing, Zone 18.

Condition 1.1. Emission Units table – please consider removing the make and model number of the resin chop and gelcoat spray guns, because the only relevant descriptors are the type of material applied, mix method, and MACT process classification (atomized or non-atomized). Equivalent gun equipment from other maker should be allowed without revising the permit. Even Magnum has discontinued and replaced listed equipment, prompting a recent permit action. Note that this is how R13-2006E handles the new UTILE guns.

Please correct the description for EU12A as shown in the draft permit markup (**Exhibit A**).

Please remove EU19 Acrylic Molding Station from this table, because this unit is no longer present.

Please add the new UTILE equipment per Attachment D and the emission unit table in R13-2006E. This includes units UGC, UGP-1, UGP-2, UR1-1, UR1-2, UR2-1, UR2-2, and a row with no unit number for the sanding and trimming of the UTILE sheets.

Condition 1.2. Active Permits – update the active R13 permit number to R13-2006E, 01/25/16

<u>NO CHANGES</u> to Section 2.0 General Conditions

Condition 3.1.13. Flow straightening devices on stacks – please add clarification that flow straightening devices are not appropriate or required for the exhaust duct runs between the process enclosures and the Dürr control system prefilter. Such devices would restrict the exhaust airflow could accumulate unwanted resin, gelcoat, and laminate dust, that would lead to an unacceptable drop in ventilation performance.

Condition 3.7. Permit Shield – please add a subsection b. after a. that states the non applicability of the CAM rule.

Condition 4.1.1. Table I Maximum Allowable PM from an "incinerator" – please consider removing this condition, because the Table I factor is obviously intended for an incinerator that burns solid refuse and not an oxidizer that consumes trace amounts of VOC vapor in air.

For example at maximum VOC vapor input concentration, RTO-C1 will handle about165 lb/hr of VOC vapor, which is almost two orders of magnitude less than the lowest Table I input range of 15,000 lb/hr. Such a large input value only makes sense for solid refuse incineration. The corresponding Table I PM emission limit for RTO-C1 is 165 lb/hr × 5.43 = 895.6 lb/hr. According to the AP-42 factors for external natural gas combustion, the RTO burners will only emit 0.06 lb/hr of PM at full burner firing. Again, the actual maximum PM rate limit from RTO-C1 is over four orders of magnitude less than the Table I limit, which suggests that this limit is not applicable or relevant to oxidation. This disconnect between incineration and oxidation results in a trivial condition that has no analogous condition in R13-2006E.

Condition 4.1.3. 40% opacity in ST-1 – there is no smoke from ST-1 as found in solid refuse incineration. This condition is superseded by the more stringent requirement for zero opacity to comply with the PM/PM-10 limits in Table 4.1.1.a. Please remove this redundant condition. The previous analogous condition in R13-2006D was already removed.

Condition 4.1.4. – please consider removing this condition for the same reason as above. Unlike a solid refuse incinerator, the RTO-C1 oxidation device is incapable of creating and releasing "particles of unburned or partially burned refuse or ash." This is a trivial condition that has no analogous condition in R13-2006E.

Condition 4.1.5. Objectionable Odors – please consider removing this condition, because Condition 3.1.4 already prohibits objectionable odors from the facility. This is a redundant condition that has no analogous condition in R13-2006E.

Condition 4.1.7. Table 4.1.1.a limits – some notation about these limits may be appropriate. The combustion byproduct limits in Table 4.1.1.a. are unrelated to the equivalent emission estimates using full RTO burner firing and the current corresponding AP-42 factors for external combustion of natural gas. Some of these emission limits appear to go back to the first R13 permit, which was seventeen years ago, and were simply carried forward with each R13 amendment. The first R13 permit was issued to Aker Plastic in 1997 and has been amended five times since then; R13-2006A in 2001, R13-2006B date unknown, R13-2006C in 2007, R13-2006D in 2014 and R13-2006E in 2016. In the particular case of the CO and NOx table limits, our consultant believes that the original CO and NOx limit values were probably developed using actual stack test results for CO and NOx in the RTO stack many years ago and not by using combustion emission factors. This seems likely, because emission factors for the RTO combustion of dilute styrene vapor mixed with methane at high temperature are not available. Beyond that observation, our consultant cannot reconstruct from the available record how the exact CO, NOx, or PM limits for ST-1 were initially set.

The current VOC limit for ST-1 is the sum of the maximum VOC emission rate in R13-2006D (92.08 tpy) and the maximum increase in VOC emissions at ST-1 due to the new UTILE operation (36.26 tpy - see Table 1). Accordingly, the current VOC limit for ST-1 in R13-2009E is 92.08 + 36.26 = 128.34 tpy VOC. The restoration limit of 202 tpy VOC is unchanged from R13-2006D, and does not include the UTILE line emissions.

Condition 4.1.15. – should be removed, because the Pearl acrylic sheet thermo-former has been dismantled and removed from the facility.

Condition 4.2.1. – note that five detector tubes are used to sample the concentrator outlets after the fifth concentrator is installed in UTILE Phase 2. Please see the proposed draft permit markup (**Exhibit A**).

Condition 4.3.2. Methods 7E and 10 – should be removed, because these methods have no bearing on the purpose of the testing detailed in Section 4.3.1., which is to measure the styrene adsorption efficiency of the Dürr concentrator units. These tests are a hold-over from an earlier and now obsolete requirement to test the destruction efficiency of the RTO unit every five years in conjunction with the Title V permit renewal using Method 25A. Methods 7E and 10 were included with the Method 25A testing to check the CO and NOx levels from the RTO combustion chamber. The five-year RTO test requirement was eliminated by R13-2006D and there is no longer any analogous condition in R13-2006E. Method 18 is the test method now used to check the performance of the preconcentrators.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475
www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):**
MAAX US Corp

2. Facility Name or Location:
Martinsburg Facility
718 Mid Atlantic Parkway, Martinsburg, WV 25404

3. DAQ Plant ID No.:
0 0 3 — 0 0 0 2 6

4. Federal Employer ID No. (FEIN):
3 5 1 1 7 9 0 6

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? 02/01/1987
☒ **Permit Renewal** — What is the expiration date of the existing permit? 07/20/2017
☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ **Corporation** ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ **Both**

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____
_____
_____

8. Number of onsite employees:
200

9. Governmental Code:

☒ **Privately owned and operated; 0**
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ **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.

11. Mailing Address		
Street or P.O. Box: 718 Mid Atlantic Parkway		
City: Martinsburg	**State:** WV	**Zip:** 25404
Telephone Number: (304) 263-2525	**Fax Number:** (304) 263-9022	

12. Facility Location		
Street: 718 Mid Atlantic Parkway	**City:** Martinsburg	**County:** Berkeley
UTM Easting: 246.4 km	**UTM Northing:** 4,376.0 km	**Zone:** ☐ 17 or ☒ 18
Directions: From I-81, take exit 16E, go to stop light make left, make immediate left onto Mid Atlantic Parkway. Plant is located ½ mile on right side of road.		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☐ Yes ☒ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** MD, PA, VA
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: James Vander Weide		**Title:** Plant Manager
Street or P.O. Box: 718 Mid Atlantic Parkway		
City: Martinsburg	**State:** WV	**Zip:** 25404
Telephone Number: (304) 263-2525 ex 8405	**Fax Number:** (304) 263-9022	
E-mail address: james.vanderweide@maax.com		
Environmental Contact: Isabel Boatright		**Title:** Environment, Health and Safety Specialist
Street or P.O. Box: 1625 James P. Rodgers Drive		
City: Valdosta	**State:** GA	**Zip:** 31601
Telephone Number: (877) 438-6229 ex 8463	**Fax Number:** (229) 247-7137	
E-mail address: isabel.boatright@maax.com		
Application Preparer: Robert Haberlein		**Title:** Owner
Company: Engineering Environmental		
Street or P.O. Box: 2 Fisk Circle		
City: Annapolis	**State:** MD	**Zip:** 21401
Telephone Number: (410) 268 -7367	**Fax Number:** none	
E-mail address: robhab@erols.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Reinforced plastic composite (fiberglass) bathware manufacturing	Bathtubs and shower enclosures, and bath wall panels	326191	3088

Provide a general description of operations.

Gelcoat Bathware Parts (two lines)

Step 1 – a bathware mold is cleaned, repaired, and waxed and transported to one of the two Gelcoat lines

Step 2 – a thin layer of gelcoat is applied with a gun to the waxed mold, and the gelcoat is allowed to cure

Step 3 – layers of glass and resin are applied with a gun to the gelcoated mold and rolled out by hand, then cure

Step 4 – the cured bathware part is pulled from the mold – the mold is returned to the cycle at step 1

Step 5 – the pulled bathware part is cut and ground to size, and repaired if needed

UTILE Wall Panel Parts (two conjoined lines)

Step 1 – a thin layer of gelcoat is applied with an atomizing gelcoat gun in a shared gelcoat booth

Step 2 – the clear gelcoat is allowed to rest while curing to a gelled state in a shared storage rack

Step 3 – the clear gelcoat is instantly hardened using a shared high-intensity UV light station

Step 4 – UV-cured ink is applied to the clear gelcoat with one of two large industrial inkjet printers

Step 5 – pigmented gelcoat is applied to the printed clear gelcoat using one of two atomizing gelcoat guns

Step 6 – the pigmented gelcoat is allowed to cure while passing through one of two ventilated curing tunnels

Step 7 – resin and glass fiber is applied to the cured gelcoat using a non-atomizing applicator in one of two booths

Step 8 – the laminate is allowed to cure as it passed back through one of two ventilated curing tunnels

Step 9 – the rough cured panel is pulled from the mold at one of two demolding stations

Step 10 – the rough panel is trimmed & finished in a shared trimming room

All process VOC/HAP emissions are collected and delivered to the Durr preconcentrator/RTO control system.

Composite grind dust is collected and delivered to three dust collectors (two for Bathware one for UTILE)

Four resins tanks in the Mix Room are vented outdoors

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☐ SIP	☐ FIP
☒ **Minor source NSR (45CSR13)**	☐ PSD (45CSR14)
☐ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☐ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☐ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies. 40 CFR 63 Subpart PPPPP, Plastic Part Coating MACT Rule 40 CFR 64 CAM Rule
☒ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

SEE the preceding page

☐ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

SEE Section 2 of the application text, Attachment I, **Exhibit A,** and refer to R13-2006E

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE Section 2 of the application text, Attachment I, **Exhibit A**, and refer to R13-2006E

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements *(Continued)* - *Attach additional pages as necessary.*

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

SEE the preceding page

☐ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE the preceding page

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**. N/A – in full compliance

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2006E	01/25/2016	Installation of 2 UTILE Lines (in two phases) and removal of the Pearl Line
R30-00300026-2012 MM01	07/20/2012 (issued) 07/01/2014 (MM01)	Current Title V permit
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
R13-2006D	01/03/2014	amended by R13-2006E
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	43.84
Nitrogen Oxides (NO_X)	10.82
Lead (Pb)	N/A
Particulate Matter ($PM_{2.5}$)[1]	0.66
Particulate Matter (PM_{10})[1]	0.66
Total Particulate Matter (TSP)	0.66
Sulfur Dioxide (SO_2)	not listed
Volatile Organic Compounds (VOC)	128.34 202.2 (restoration)
Hazardous Air Pollutants[2]	Potential Emissions
not listed	
Regulated Pollutants other than Criteria and HAP	Potential Emissions
none	

[1]$PM_{2.5}$ and PM_{10} are components of TSP.
[2]For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☐	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☐	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☐	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☒	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: <u>DBE-based cleaners – very low volatility <1 lb VOC/hr and <10,000 lb VOC/yr</u> _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)		
☒	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: <u>DBE-based cleaners – zero HAP emissions</u> _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☒	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☐	26.	Fire suppression systems.
☐	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☒	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☒	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☒	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.

24. Insignificant Activities (Check all that apply)		
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
☐	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☐	43.	Process water filtration systems and demineralizers.
☒	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☐	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☐	54.	Steam vents and safety relief valves.
☐	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☐	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.
26. Emission Units
For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.
For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**. N/A – in full compliance with all applicable requirements
27. Control Devices
For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**. N/A - CAM not applicable

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. 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.

Responsible official (type or print)	
Name: James Vander Weide	Title: Plant Manager and Responsible Official

Responsible official's signature:

Signature: James Vander Weide Signature Date: 1/18/2017

(Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:	
☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s) N/A – in full compliance
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) CAM not applicable, see cover

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

TITLE V PERMIT REVISION APPLICATION

PLEASE CHECK TYPE OF TITLE V PERMIT REVISION:

- ☐ **ADMINISTRATIVE AMENDMENT**
- ☐ **MINOR MODIFICATION**
- ☒ **SIGNIFICANT MODIFICATION** (as directed by DEP)
- ☐ **OFF-PERMIT CHANGE**
- ☐ **OPERATIONAL FLEXIBILITY [502(B)(10) CHANGES]**
- ☐ **REOPENING**

TITLE V PERMIT NUMBER:

R30 - 00300026-2012 MM01

WHEN DID OR WHEN WILL THE CHANGES OCCUR?

06/01/2016 - start up of UTILE phase 1

SIC CODES: PRIMARY: 3088 SECONDARY: none

Refer to "Title V Revision Guidance" (Appendix A, "Title V Permit Revision Flowchart"), for type of revision, and to Section 7 of this Application for Application Completeness and Ability to Operate information

Section 1: General Information

a. Name of Applicant ***(As registered with the WV Secretary of State's Office)*****:**	**b. Facility Name or Location:**
MAAX US Corp	Martinsburg Facility 718 Mid Atlantic Parkway, Martinsburg, WV

b. Contact Information

Responsible Official: James Vander Weide		Title: Plant Manager
Street or P.O. Box: 718 Mid Atlantic Parkway		
City: Martinsburg	State: WV	Zip: 25404
Telephone Number: (304) 263-2525 ex 8405	Fax Number: (304) 263-9022	E-mail: james.vanderweide@maax.com
Environmental Contact: Isabel Boatright		Title: EHS Specialist
Street or P.O. Box: 1625 James P. Rodgers Drive		
City: Valdosta	State: GA	Zip: 31601
Telephone Number: (877) 438-6229 ex 8463	Fax Number: (229) 247-7137	E-mail: isabel.boatright@maax.com
Application Preparer: Robert Haberlein		Title: Owner
Company: Engineering Environmental		
Street or P.O. Box: 2 Fisk Circle		
City: Annapolis	State: MD	Zip: 21401
Telephone Number: (410) 268-7367	Fax Number: none	E-mail: robhab@erols.com

Person to contact if we have questions regarding this Application: Isabel Boatright

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

Section 2: Revision Information

a. Description of Changes Associated with this Permit Revision

Provide a general description of changes to the facility.

Removal of the existing Pearl acrylic bathware line

Addition of two UTILE lines in two phases

Upgrading of the process ventilation and Durr preconcentrator control system to handle the new lines

Minor corrections to permit conditions – see Section 2

b. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ 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 as **ATTACHMENT A.**

c. Provide a **Plot Plan(s**) if new emission points were added since latest revision, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the new/modified stationary source(s) is located as **ATTACHMENT B.** For instructions, refer to "***Plot Plan - Guidelines***"**.**

d. Provide a detailed **Process Flow Diagram(s)** if new emission points were added since latest revision, showing each new/modified process or emissions unit as **ATTACHMENT C.** Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

e. Emission Units Table

Fill out the **Emission Units Table** for new and/or modified equipment and provide it as **ATTACHMENT D**.

f. Emission Units Form(s)

For each new and/or modified emission unit(s) with applicable requirement(s) listed in the **Emission Units Table**, fill out and provide an **Emission Unit Form(s)** as **ATTACHMENT E**.

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

For each new and/or modified emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

g. Control Devices

For each new and/or modified control device listed in the **Emission Units Table**, fill out and provide an **Air Pollution Control Device Form(s)** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Part 70 Major Source Threshold level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. If applicable, please check appropriate box in Section 3(a) below, fill out and provide these forms for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

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

Section 3: New Applicable Requirements

a. New Applicable Requirements Summary	
Mark all applicable requirements associated with the changes involved with this permit revision:	
☐ SIP	☐ FIP
☒ **Minor source NSR (45CSR13)**	☐ PSD (45CSR14)
☐ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS (Subpart(s)_____)	☐ Section 112(d) MACT standards (Subpart(s)_____)
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☐ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ Compliance Assurance Monitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR26)
☐ CAIR SO_2 Trading Program (45CSR41)	

b. 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.

40 CFR 63 Subpart PPPP, Plastic Part Coating; not applicable because no applicable coatings are used

40 CFR 64, CAM rule; exempt because the source is subject to a 112 standard (MACT rule) promulgated after 11/15/90

☒ **Permit Shield Requested** *(not applicable to Minor Modifications, Off-Permit Changes, or for Operational Flexibility)*

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

c. Suggested Title V Draft Permit Language

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 as **ATTACHMENT I**. 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.

See Section 2 of the application text and **Exhibit A** (marked up current Title V permit)

d. 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
R13-2006E	12/25/2015	
	/ /	
	/ /	

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

Permit Number	Date of Issuance	Permit/Consent Order Condition Number
R13-2006D	01/03/2014	superseded by R13-2006E
	/ /	
	/ /	

Section 4: Change in Potential Emissions

Pollutant	Change in Potential Emissions (+ or -), TPY	For Off-Permit Changes: Provide Total Aggregated Emissions Increase Since Last Permit/Modification
Total VOC	+ 36.26 (UTILE lines)	N/A

Provide **Supporting Emission Calculations/Estimations** as **ATTACHMENT J**. See **Table 1** and **Table 2**

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

Section 5: Certification of Information

a. 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):	_____ *(Please use blue ink)*	Date:	____ / ____ / ____ *(Please use blue ink)*
Named (typed):		Title:	

b. Certification of Truth, Accuracy and Completeness and Certification of Compliance
(Required For All Revision Requests)

Note:	*This Certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.*

Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

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.

Responsible official (type or print)

Name: James Vander Weide	Title: Plant Manager and RO

Responsible official's signature:

Signature: James Vander Weide *(Please use blue ink)*

Signature Date: 1/18/2017 *(Please use blue ink)*

Section 6: Attachments

Note: Please check all applicable attachments included with this permit application:	
☐	ATTACHMENT A: Business Confidentiality Claims N/A – no claims are made
☒	**ATTACHMENT B**: Plot Plan(s) B-1 – Site Plot Plan B-2 – Production Area Plan Views
☒	**ATTACHMENT C**: Process Flow Diagram(s) C-1 – Gelcoat Bathware Lines C-2 – UTILE lines
☒	**ATTACHMENT D**: Emission Units Table
☒	**ATTACHMENT E**: Emission Unit Form(s)
☐	*ATTACHMENT F: Schedule of Compliance Form(s)* N/A - facility is in full compliance
☒	**ATTACHMENT G**: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring Form(s) N/A - CAM is not applicable
☒	**ATTACHMENT I**: Suggested Title V Draft Permit Language see **Exhibit A** - markup of current permit
☒	**ATTACHMENT J**: Supporting Emission Calculations/Estimations **Table 1** and **Table 2**

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

Section 7: Application Completeness and Ability to Operate information for different types of Title V Permit revisions

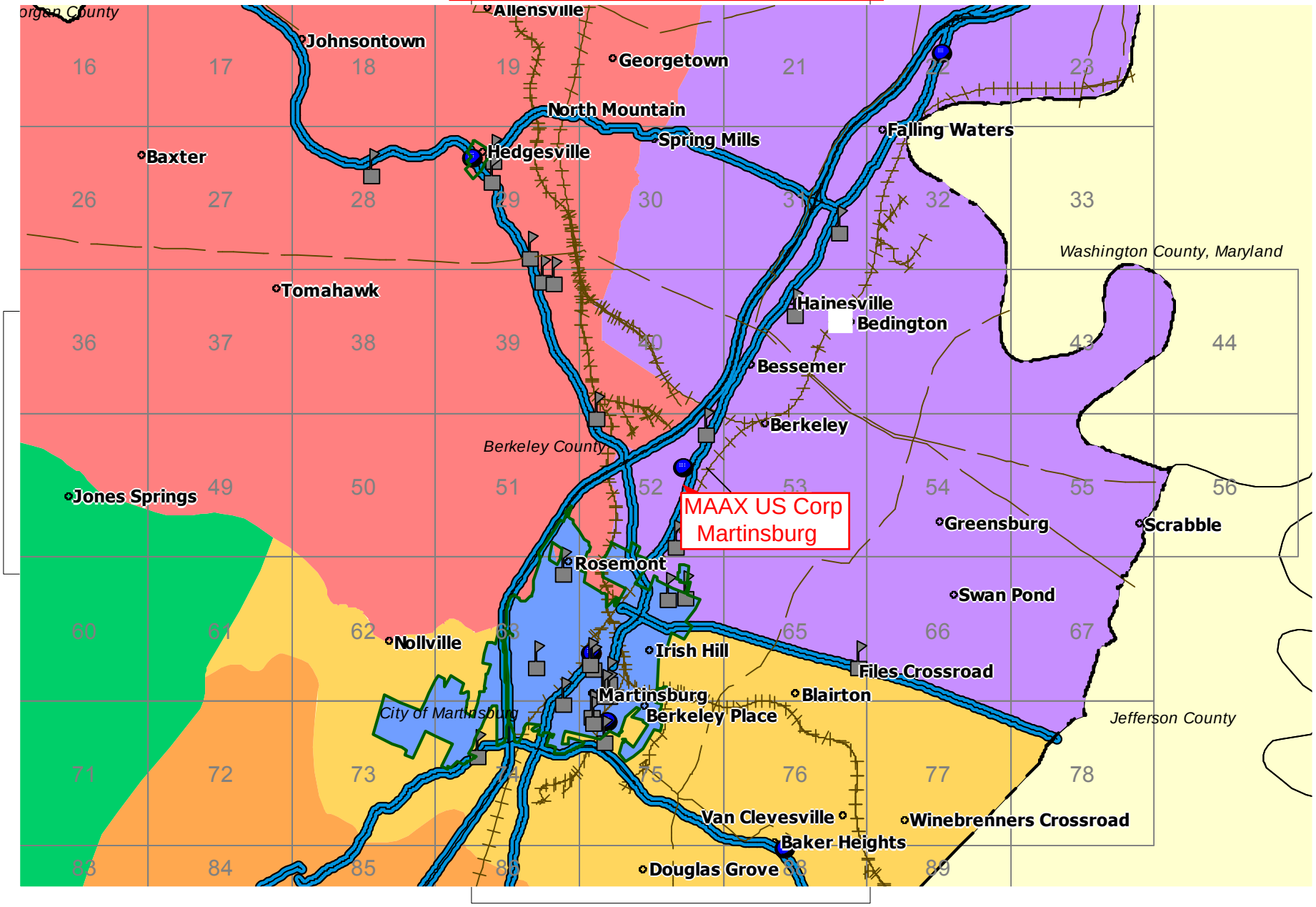
(Refer to "Title V Revision Guidance" for more information)

Type of Revision	Application/Notification Requirements	Ability to Operate
Administrative Amendment	☐ Description of change ☐ Supplemental information (rationale) ☐ Certification of application and compliance (Section 5(b))	Upon submittal of the application
Minor Modification	☐ Description of change ☐ Associated change in emissions ☐ Sample Calculations/estimations for determining emissions ☐ List of new applicable requirements associated with changes ☐ List of R13/R14 permits associated with the changes ☐ Suggested draft permit language ☐ Certification for use of Minor Modification (Section 5(a)) ☐ Certification of application and compliance (Section 5(b)) ***No Permit Shield***	After seven (7) days from the submittal of the application, or upon issuance of the R13/R14 permit (if any), whichever is later
Significant Modification	☒ Description of change ☒ Associated change in emissions ☒ Sample Calculations/estimations for determining emissions ☒ List of R13/R14 permits associated with the changes ☒ List of new applicable requirements associated with changes ☒ Request for permit shield ☒ Updated drawings, plot plans, process flow diagrams, etc. ☒ Certification of application and compliance (Section 5(b))	Upon issuance of the modified Title V permit (if changes either conflict with, or are prohibited by existing Title V Permit terms/ conditions), OR upon obtaining of proper R13/ R14 Permit for first 12 months (if changes neither conflict with, nor are prohibited by existing Title V Permit terms/conditions)
Off-Permit Changes	☐ Notification/application to DAQ and U.S.E.P.A. within 2 business days of the change ☐ Description of the change ☐ The date on which the change will occur or has occurred ☐ Pollutants and amounts emitted ☐ Sample Calculations/estimations for determining emissions ☐ Any new applicable requirements that will apply to changes ☐ Certification of application and compliance (Section 5(b)) ***No Permit Shield***	After two (2) days from the submittal of the application
Operational Flexibility	☐ Notification/application submitted to DAQ and U.S.E.P.A. in advance (7 days prior to making changes) ☐ Description of the change ☐ The date on which the change is to occur ☐ Permit terms and conditions affected by the change ☐ Certification of application and compliance (Section 5(b)) ***No Permit Shield***	After seven (7) days from the submittal of the application/notification to DAQ and EPA
Reopening	☐ Description of change ☐ List of new applicable requirements associated with changes ☐ Suggested draft permit language ☐ Certification of application and compliance (Section 5(b))	Ability to operate is not reflected by the changes

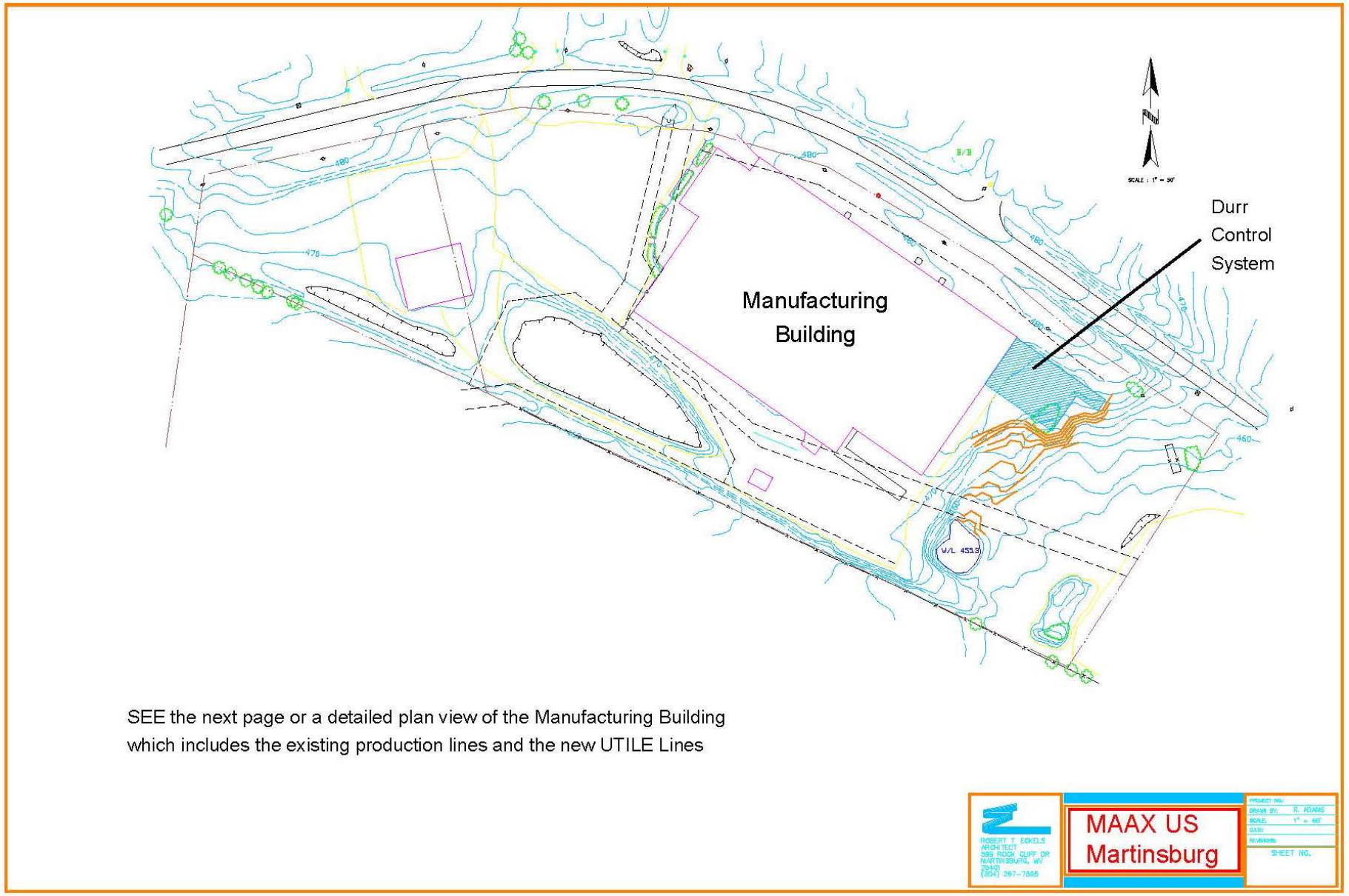
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Attachment A

Area Map for MAAX US Corp Martinsburg

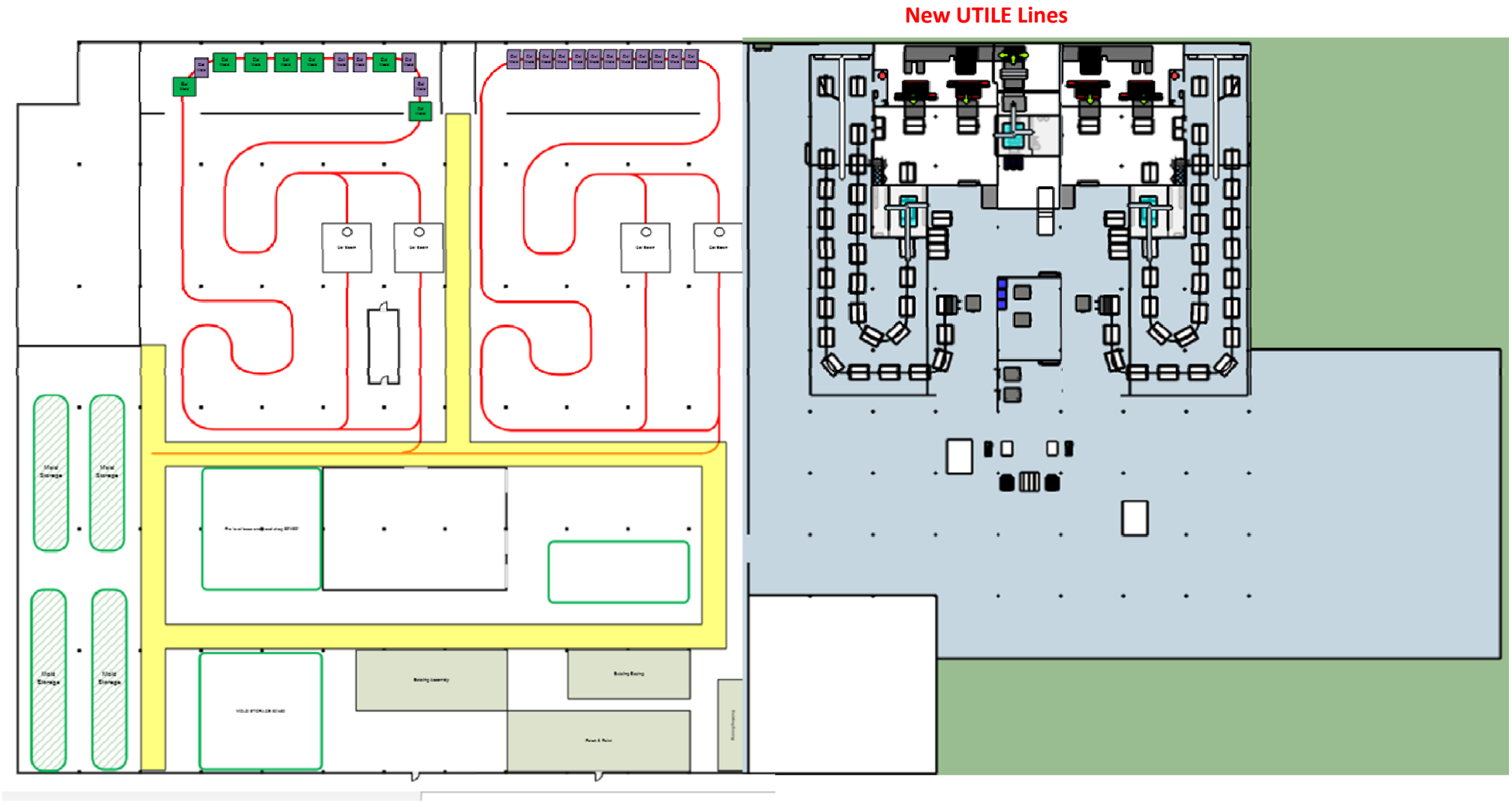


Attachment B-1 – Plot Plan of the MAAX US Corp Martinsburg Site

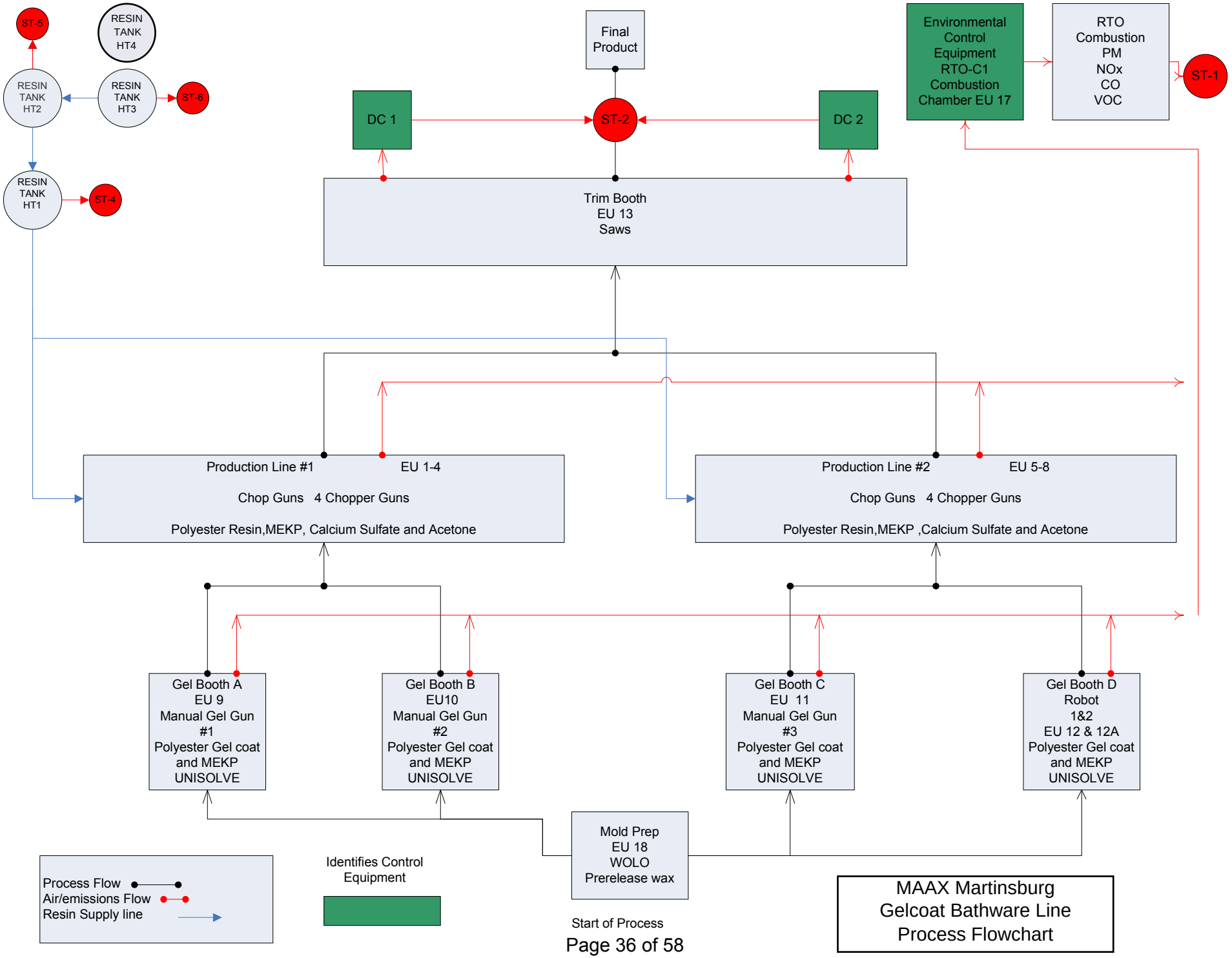


SEE the next page or a detailed plan view of the Manufacturing Building which includes the existing production lines and the new UTILE Lines

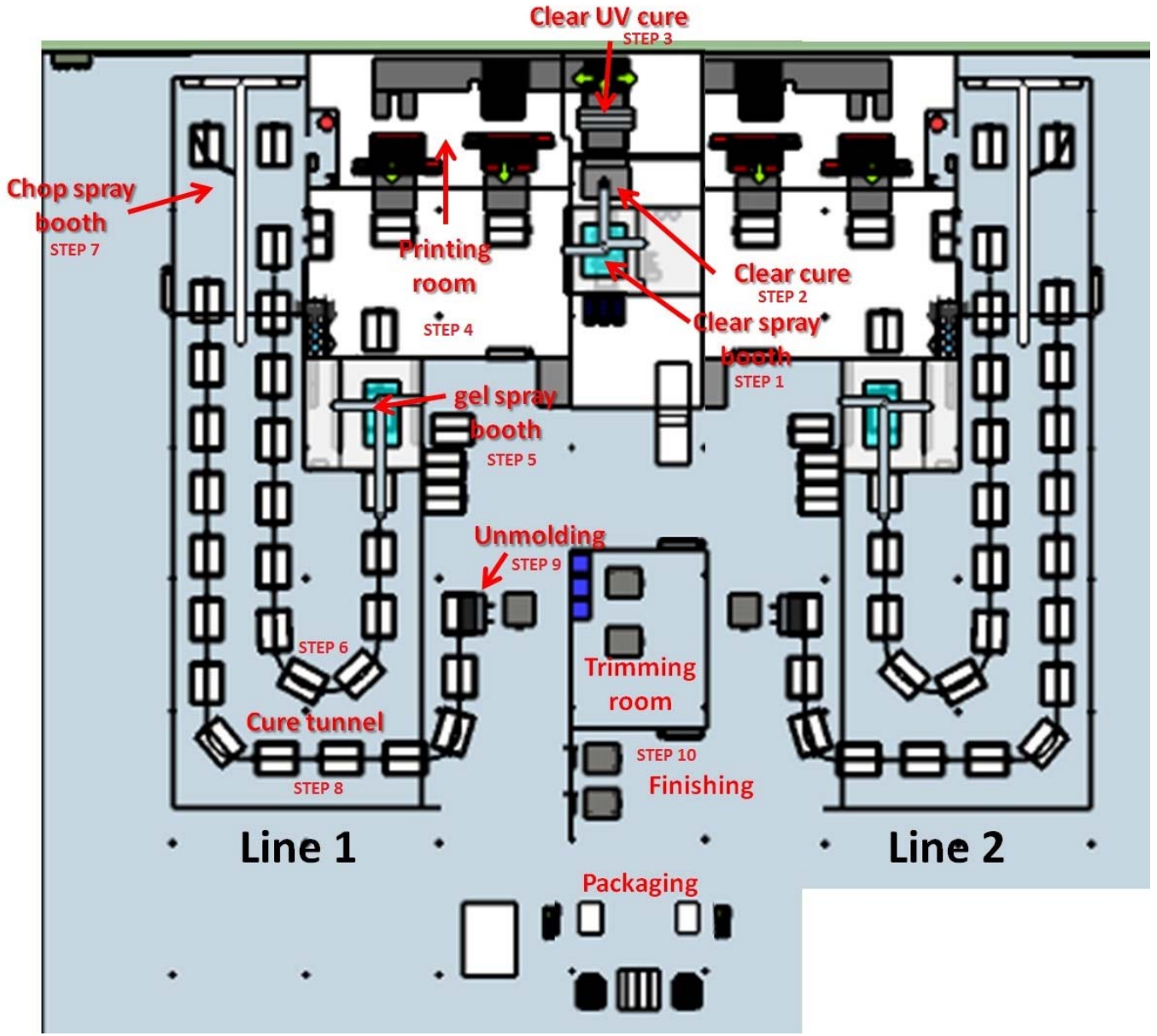
Attachment B-2 – Plan View of the Existing Gelcoat Bathware Production Lines and New UTILE Lines



Attachment C-1 - Process Flow Diagram for MAAX Martinsburg Gelcoat Bathware Lines



Attachment C-2 – UTILE Panel Line Process Flow Diagram



ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
ST-1	RTO-C1	EU-1	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-2	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-3	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-4	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-5	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-6	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-7	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-8	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-1	RTO-C1	EU-9	Gelcoat Spray Gun (external mix, atomized)	68.5 lbs/hr	1987
ST-1	RTO-C1	EU-10	Gelcoat Spray Gun (external mix, atomized)	68.5 lbs/hr	1987
ST-1	RTO-C1	EU-11	Gelcoat Spray Gun (external mix, atomized)	68.5 lbs/hr	1987
ST-1	RTO-C1	EU-12	Gelcoat Spray Gun (external mix, atomized)	68.5 lbs/hr	1987
ST-1	RTO-C1	EU-12A	Resin Chop Gun (internal mix, non-atomized)	171 lbs/hr	1987
ST-2	DC-1	EU-13	Trim Saws	6.24 lbs/hr	1987
ST-2	DC-2	EU-13	Trim Saws	6.24 lbs/hr	2001
ST-4	N/A	EU-14	Resin Storage Tank – HT-1	5,000 gals	1987
ST-5	N/A	EU-15	Resin Storage Tank – HT-2	5,000 gals	1987
ST-6	N/A	EU-16	Resin Storage Tank – HT-3	5,000 gals	1987
ST-7	N/A	EU-16A	Resin Storage Tank – HT-4	5,000 gals	2011
ST-1	N/A	EU-17	RTO Combustion (natural gas burners only)	8 MMBtu/hr	1997
ST-1	RTO-C1	EU-18	Wax Application	1 lbs/hr	2005
UTILE Production Equipment					
ST-1	RTO-C1	UGC	UTILE Clear Gelcoat Spray Gun (common)	N/A	2016
ST-1	RTO-C1	UGP-1	UTILE Pigmented Gelcoat Spray Gun (Line 1)	N/A	2016
ST-1	RTO-C1	UR1-1	UTILE Resin Chop Gun 1 (Line 1)	N/A	2016

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
ST-1	RTO-C1	UR1-2	UTILE Resin Chop Gun 2 (Line 1)	N/A	2016
ST-1	RTO-C1	UGP-2	UTILE Pigmented Gelcoat Spray Gun (Line 2)	N/A	*2017 2nd phase*
ST-1	RTO-C1	UR2-1	UTILE Resin Chop Gun 1 (Line 2)	N/A	*2017 2nd phase*
ST-1	RTO-C1	UR2-2	UTILE Resin Chop Gun 2 (Line 2)	N/A	*2017 2nd phase*
ST-1	UTILE dust collector & RTO-C1	not identified by emission unit ID	Sanding and Trimming of the UTILE sheets A UTILE dust collector system removes 99% of the dust and returns the filtered air to the building. Any residual dust is filtered by the Dürr prefilter.	N/A	2016

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E – Resin Gun Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EU-1, 2, 3, 4, 5, 6, 7, 8, 12A UR1-1, UR1-2, UR2-1, UR2-2	Resin Chop Gun UTILE Resin Gun	RTO-C1

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

This emission unit is an internal mix resin chop gun that applies up to 171 lb/hr of resin, glass fibers, and MEKP catalyst (regardless of make or model)

Manufacturer:	**Model number:**	**Serial number:**
Magnum (current model)	TRT-1000-F (current model)	N/A

Construction date:	**Installation date:**	**Modification date(s):**
02/1987	02/1987	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

EACH UNIT - 171 lb/hr of resin

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
171 lb/hr resin per gun	1,497,960 lb/yr resin per gun (for continuous 24/7 delivery)	8760 hr/yr (maximum operations) 6500 hr/hr (repair scenario)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes **_X_ No**	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO_X)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	N/A	N/A
Particulate Matter (PM_{10})	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO_2)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	part of the facility total VOC
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
none listed		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
none		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Unified Emission Factors (UEF) – referenced in current AP-42 for Open Molding Processes

SEE Attachment I, **Exhibit A** and Attachment J, **Table 1** and **Table 2** for specific factors equations and calculations

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

SEE Attachment I, **Exhibit A** and refer to R13-2006E

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE Attachment I, **Exhibit A** and refer to R13-2006E

Are you in compliance with all applicable requirements for this emission unit? <u>X</u> Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E – Gelcoat Gun Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EU-9,10,11,12 UGC, UGP-1,2	Gelcoat Spray Gun UTILE Gelcoat Gun	RTO-C1

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

This emission unit is an external mix atomized gelcoat spray gun that delivers 68.5 lb/hr of gelcoat and MEKP catalyst (regardless of make or model)

Manufacturer:	**Model number:**	**Serial number:**
Magnum (current)	ATG-3500-FIT-INT (current)	N/A
Construction date:	**Installation date:**	**Modification date(s):**
02/1987	02/1987	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

EAH UNIT – 68.5 lb/hr of gelcoat

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
68.5 lb/hr gelcoat per gun	600,060 lb/yr gelcoat per gun (for continuous 24/7 delivery)	8760 hr/yr (maximum operations) 6500 hr/hr (repair scenario)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes **X** **No**	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO_X)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	N/A	N/A
Particulate Matter (PM_{10})	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO_2)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	part of the facility total VOC
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
none listed		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
none		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Unified Emission Factors (UEF) – referenced in current AP-42 for Open Molding Processes

SEE Attachment I, **Exhibit A** and Attachment J, **Table 1** and **Table 2** for specific factors equations and calculations

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

SEE Attachment I, **Exhibit A** and refer to R13-2006E

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE Attachment I, **Exhibit A** and refer to R13-2006E

Are you in compliance with all applicable requirements for this emission unit? **_X_** Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E – Resin Storage Tank Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EU- 14, 15, 16, 17	Resin Storage Tanks (formerly called Holding Tanks)	N/A – tanks vented to atmosphere

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Four storage tanks located inside the building in the Mixing Room, each unit is used to store liquid resin. Each tank holds 5,000 gallons of resin or approximately 40,000 - 42,000 lb of material. Each tank is now vented to the outdoor atmosphere through the roof.

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A

Construction date:	**Installation date:**	**Modification date(s):**
02/1987	02/1987	2011 – addition of fourth tank

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

5,000 gallons each tank

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
456.6 lbs per tank	4,500,000 lbs per tank	8760 hr/yr (normal operations) 6500 hr/hr (repair scenario)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes **X** **No**	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO_X)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	N/A	N/A
Particulate Matter (PM_{10})	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO_2)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	insignificant vent emissions
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
none listed		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
none		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

TANKS (EPA Program)

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

SEE Attachment I, **Exhibit A** and refer to R13-2006E

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE Attachment I, **Exhibit A** and refer to R13-2006E

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E – RTO Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EU-17	Natural Gas-Fired RTO (RTO Combustion Chamber)	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

This emission unit is the RTO combustion chamber in the Dürr air pollution control device.

Manufacturer:	**Model number:**	**Serial number:**
Dürr Environmental	Custom RTO	N/A
Construction date:	**Installation date:**	**Modification date(s):**
12/1997	12/1997	N/A - until Phase 2 of UTILE project

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Two Natural Gas Burners; Each Burner – 4 MMBtu/hr; Total – 8 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
8 MMBtu/hr Natural Gas 8 MCF/hr or 0.008 MMCF/hr	70.08 MMCF/yr continuous full fire	8760 hr/yr (normal operations) 6500 hr/hr (repair scenario)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ **Yes** ___ No	**If yes, is it?** ___ Indirect Fired _X_ **Direct Fired**
Maximum design heat input and/or maximum horsepower rating: 8 MMBtu/hr natural gas only not including the variable dilute styrene vapor fuel in the desorb air	**Type and Btu/hr rating of burners:** two 4 MMBtu/hr = 8 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Supplemental fuel is natural gas used in the RTO burners when there is insufficient styrene to autofire the RTO.

Secondary fuel is dilute styrene vapor in the desorb air from the four preconcentrators

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Dilute styrene in desorb air	0%	0%	varies w/ppm
Natural gas	0%	0%	1,000 Btu/cu.ft.

Emissions Data		
Criteria Pollutants	Potential Emissions potential emission limits on ST-1 per R13-2006E Tables 4.1.1.a and b	
	PPH	TPY
Carbon Monoxide (CO)	10.01	43.85
Nitrogen Oxides (NO_X)	2.47	10.82
Lead (Pb)	0.15	0.66
Particulate Matter ($PM_{2.5}$)	0.15	0.66
Particulate Matter (PM_{10})	0.15	0.66
Total Particulate Matter (TSP)	0.15	0.66
Sulfur Dioxide (SO_2)	no longer listed	no longer listed
Volatile Organic Compounds (VOC)	36.60 93.6 (during restoration)	128.34 202.2 (during restoration)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
none listed		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
none listed		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

SEE Attachment I **Exhibit A** and Attachment J, **Table 1** and **Table 2** for specific factors equations and calculations

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

SEE **Exhibit A** and refer to R13-2006E

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE **Exhibit A** and refer to R13-2006E

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E – Finishing Tool Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EU-13	Saws & Grinders and other hand tools - Gelcoat Bathware	DC-1, 2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Several pneumatically-powered and hand-operated finishing tools such as saws, hole-saws, drills, grinders, sanders, and buffers.

Manufacturer:	**Model number:**	**Serial number:**
Dotco (one of the current)	10K4223 (one of typical)	N/A
Construction date:	**Installation date:**	**Modification date(s):**
02/1987	02/1987	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
uncontrolled PM emission rate for process is estimated at 6.24 lb/hr per control device (engineering estimate)

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Uncontrolled 6.24 lbs/hr per device Controlled 0.006 lbs/hr per device	Uncontrolled 27.3 tpy per device Controlled 0.026 tpy per device	8760 hr/yr (maximum operations) 6500 hr/hr (repair scenario)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes **_X_ No**	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

N/A

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO_X)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter ($PM_{2.5}$)	6.24 lb/hr uncontrolled	27.3 uncontrolled 0.026 controlled
Particulate Matter (PM_{10})	6.24 lb/hr uncontrolled	27.3 uncontrolled 0.026 controlled
Total Particulate Matter (TSP)	6.24 lb/hr uncontrolled	27.3 uncontrolled 0.026 controlled
Sulfur Dioxide (SO_2)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
none		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
none		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate by plant staff.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

SEE Attachment I, **Exhibit A** and refer to R13-2006E

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

SEE Attachment I, **Exhibit A** and refer to R13-2006E

Are you in compliance with all applicable requirements for this emission unit? **_X_** Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: RTO-C1	**List all emission units associated with this control device.** EU-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 12A, 17, 18; UGC; UGP-1, 2; UR1-1,2; UR2-1,2 (2nd Phase); UTILE trimming	
Manufacturer: Dürr Environmental	**Model number:** Preconcentrator w/ RTO	**Installation date:** 12/1997

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
_X_ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
_X_ Thermal Incinerator	___ Flare	**_X_** Other (describe) **Preconcentrator**
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Total VOC (normal operation)	100% per M-204	82% minimum
Total VOC (restoration)	100% per M-204	40% minimum
PM, PM-10, PM-2.5 (residual UTILE)	100% per M-204	none specified

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
This hybrid system is a combination of four (five with Phase 2 UTILE upgrade) activated charcoal preconcentrators connected to a small RTO oxidizer. The exhaust from the facility is collected inside spray rooms, spray booths, and the building enclosure, filtered in a HEPA filter bank, then delivered to the preconcentrators. The styrene is adsorbed and the clean air exhausted to the atmosphere through a tall stack. A small side stream of hot air (about 10% of the total airflow) desorbs the styrene collected on the charcoal, and this desorbed styrene is delivered to the RTO oxidizer for destruction. The RTO exhaust is also routed to the tall stack.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes **_X_ No**

If Yes, **Complete ATTACHMENT H** ----- not required

If No**, Provide justification.** The facility is not a listed source type subject to CAM. The facility was an existing source under the Composites MACT and is grandfathered as exempt from any control requirement. Controls are not needed to meet any other standard.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The monitoring and testing requirements for the Dürr control system are detailed in Sections 4.2 and 4.3 of the current Title V permit (R30-00300026-2012 MM01).

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:	**List all emission units associated with this control device.**	
DC-1 and DC-2 (identical units)	EU-13	
Manufacturer:	**Model number:**	**Installation date:**
Dust Control	S3400	DC-1 02/1987 / DC-2 01/2001

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	**_X_ Single Cyclone**
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate, PM, PM-10, PM-2.5	100% per M-204	99.89%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

The dust collection systems are used for point source capturing of particulate matter coming from saws and grinders in our pull and trim and grind operations. The normal operating pressures for the collector system is between 23-30 Kpa. Both collectors are exhausted through ST-2.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes **_X_ No**

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** The facility is not a listed source type subject to CAM. No listed pollutants are emitted. Dust controls are not needed to meet any other standard.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See **Exhibit A** and refer to R13-2006E

Static air pressure reading in dust collector device

Table 1 - UTILE Line Emission Calculations (from R13-2006E application)

MAAX Martinsburg

UTILE PTE calculation - Two Lines

Input values are shown in bold blue text

last revised

September 22, 2015

Durr Control Efficiency (% control)
83.0%

Annual PTE Emissions			
	Styrene	MMA	Total VOC
		(tpy)	
uncontolled	190.35	15.96	213.30
controlled	32.36	2.71	36.26

Monthly MACT Calculations		
Total MACT Material Usage	4,592,300	lb/yr
Weighted Average MACT Emissions	185.0	lb/ton
Weighted Average MACT Limit	195.3	lb/ton
Percentage of Average MACT Limit	94.7%	

Material Name	Annual Material Usages (lb/yr)	Material Class	Application Process	Average VOC/HAP Contents (% by weight) Styrene	MMA	Other VOC	Total VOC	UEF Emission Factors (% VOC by weight) Styrene	MMA	Other VOC	Emissions (lb/yr) Styrene	MMA	Other VOC	MACT Material Usage (lb/yr)	Total HAP Content (% wt)	MACT HAP Emissions (lb/ton)	MACT HAP Limit (lb/ton)	Percent of HAP Limit (%)
RESINS																		
UTILE resin	2,743,800	noncorros	NARA	34.4%	0%	0%	34.4%	10.90%	75%	100%	102,914	0	0	2,743,800	34.4%	75.0	88	85.2%
UTILE pigmented gelcoat	1,213,400	white	AGA	29.9%	0%	1%	30.9%	44.51%	75%	100%	161,482	0	12,134	1,213,400	29.9%	266.2	267	99.7%
UTILE clear gelcoat	635,100	clear	AGA	36.5%	6.7%	0%	43.2%	50.18%	75%	100%	116,312	31,914	0	635,100	43.2%	505.1	522	96.8%
	4,592,300																	
UTILE catalyst	91,846	catalyst				2%				100%			1,837					
											380,709	31,914	13,971					

Table 2 - Gelcoat Bathware Line Emission Calculations (from R13-2006D)

MAAX Aker Plant
VOC/HAP Estimate
Uncontrolled & Controlled PTE with New Maximum Usage

last revised January 7, 2012

Minimum Durr System Overall Control Efficiency **82%**

Input values are shown in bold blue text

PTE Emissions - Uncontrolled			
Styrene	MMA	AMS/VT	Total VOC
(tpy)			
474.59	0.00	9.93	511.54

SAP #	Material Name	Application Process	Monthly Material Usages (lb/yr)	Notes	VOC/HAP Contents (% by weight) Styrene	MMA	AMS/VT	Other VOC	Notes	Emission Factors (% VOC/HAP by weight) UEF Styrene	UEF MMA	UEF AMS/VT	Other VOC	VOC/HAP Emissions (lb/yr) Styrene	MMA	AMS/VT	Other VOC
	RESINS																
	Production resin	NARA	12,900,000	max permitted	35.0%		2.0%	0.0%	note A	10.99%		5.89%	100%	496,005	0	15,183	0
	Gelcoat (all colors)	AGA	3,225,000	max permitted	30.0%	0.0%	0.0%	0.02%	note B	44.51%	75%	0.00%	100%	430,625	0	0	645
	Tooling resin	NARA	6,000	max permitted	46.8%		0.0%	1.7%	note C	12.17%		0.00%	100%	342	0	0	102
	Tooling gelcoat	AGA	3,000	max permitted	36.8%	0.0%	0.0%	5.0%	note C	44.51%	75%	0.00%	100%	491	0	0	150
	Pearl bonding resin	NARA	589,000	proposed	34.0%		13.5%	0.0%	note F	10.85%	75%	5.89%	100%	21,722	0	4,679	0
			16,723,000														
	MISC VOC/HAP MATERIALS																
	Catalyst		840,000	max permitted				2.0%	note D				100%				16,800
	Mold release		16,500	max permitted				99.0%					100%				16,335
	Cleaner - UnisolveEX (DBE)		140,000	max permitted				99.6%	note E				0%				0
	Cleaner - Isopropanol		5,000	max permitted				100.0%					100%				5,000
	Pearl PVC glue/primer		20,000	proposed				75.0%	note G				100%				15,000
														949,186	0	19,863	54,032

NOTES

Note A Permit (Table 3.1.18) limits the maximum Total VOC content of the production resin to 36%.
Note B Gelcoats do not contain MMA - max average styrene content assumed at 30%
Note C Monomer and VOC contents are current max values in Permit Table 3.1.18
Note D Assumes that 2% MEK content is only emitted VOC species - emitted at 100%
Note E Assumes that DEP accepts DBE as an exempt non-volatile cleaner
Note F Assume Pearl spa operation produces 20,000 units using 588,000 lb resin
Note G Assume 1 lb glue/primer used per spa unit at 75% VOC content - 100% emitted
Note H All other material usages proportionally scaled with the resin usage increase

PTE Emissions - Controlled (after RTO)			
Styrene	MMA	AMS/VT	Total VOC
(tpy)			
Permitted Emission Limits from the RTO Stack (Table 4.1.4.) 91.10	9.11		92.08
Maximum Controlled PTE Emissions from the RTO Stack 85.43	0.00	1.79	92.08