Statement of Basis for the Air Operating Permit – AOP 011R4

- Draft -

MAAX US Corp.

Bellingham, Washington

DRAFT June 24, 2022

northwest Clean Air agency

Serving Island, Skagit & Whatcom Counties

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Expires: last renewal + 5 years

Renewal Application Due: last renewal + 4 years

Table of Contents

1 INTRODUCTION AND GENERAL FACILITY DESCRIPTION

The MAAX US Corp. Bellingham facility (also identified herein as the permittee, MAAX, or the facility) is a fiberglass bath-ware manufacturer in Bellingham, Washington. MAAX is required to have an air operating permit because the facility has the potential to emit greater than 10 tons per year of styrene, a regulated hazardous air pollutant (HAP) listed in section 112(b) of the Federal Clean Air Act, and a volatile organic compound (VOC). Styrene is released during mixing, application (layup) and subsequent curing of resins applied at the facility. MAAX does not have the potential to emit more than 100 tons per year of any criteria pollutants.

Table 1-1 below presents actual emissions from MAAX, including those of styrene, as reported in the Emission Inventory for the previous five years.

Table 1.1-1 MAAX Emission Inventory 2017-2021

Pollutant	Calendar Year Emissions (tons)				
	2017	2018	2019	2020	2021
PM_{10}	0	0	0	0	0
SO_2	0	0	0	0	0
NOx	0	0	0	0	0
VOC	20.8	19.5	15.8	16.0	19.5
CO	0	0	0	0	0
HAP (styrene)	20.8	19.5	15.8	16.0	19.5
GHG (CO_2e)	0	0	0	0	0

This will be the fourth operating permit renewal for MAAX.

The purpose of this Statement of Basis (SOB) is to set forth the legal and factual basis for the terms of the Air Operating Permit (AOP) issued to MAAX under the authority of the Washington Clean Air Act, Chapter 70A.15 Revised Code of Washington (RCW), Chapter 173-401 of the Washington Administrative Code (WAC), and Northwest Clean Air Agency Regulation Section 322. Unlike the permit, this document is not legally enforceable in accordance with WAC 173-401-700(8). It includes references to the applicable statutory or regulatory provisions that relate to the facility's air emissions and provides background information to facilitate review of the permit by interested parties.

1.1 Facility Description

MAAX US Corp. in Bellingham, Washington manufactures reinforced plastic bath-ware products. These activities are classified under SIC code 3088, "plastics plumbing fixtures". MAAX is located within a light-use industrial park. The area surrounding MAAX is designated in attainment for all National Ambient Air Quality Standards (NAAQS).

Figure 1.1-1 MAAX US Corp. Footprint

Figure 1.1-1 shows a north-oriented overhead view of the facility within the industrial park. A plot plan of the facility with labels on buildings containing emission points is included as Figure 1.1-2. As shown on the plan, the primary buildings house the following activities: office work, warehouse storage, maintenance and repair, mold building (tooling), thermoforming, fiberglass spray application, part drilling and trimming, whirlpool installation, and packaging/shipping. The primary process equipment includes: a bulk resin storage tank, non-atomized mechanical resin application guns, trim saws, natural gas ovens, a natural gas makeup air heating furnace, and a solvent (acetone) distillation unit. MAAX US Corp. builds 40,000 acrylic bath units per year.

MAAX US Corp. does not operate any large combustion units, only a few small natural gas heaters, water heaters, and ovens. The natural gas-fired thermoforming oven has a maximum capacity of 1,433,700 Btu/hour and is categorically exempt from minor NSR permitting under NWCAA 300.3(C)(5). These units are considered Insignificant Emission Units under the AOP.

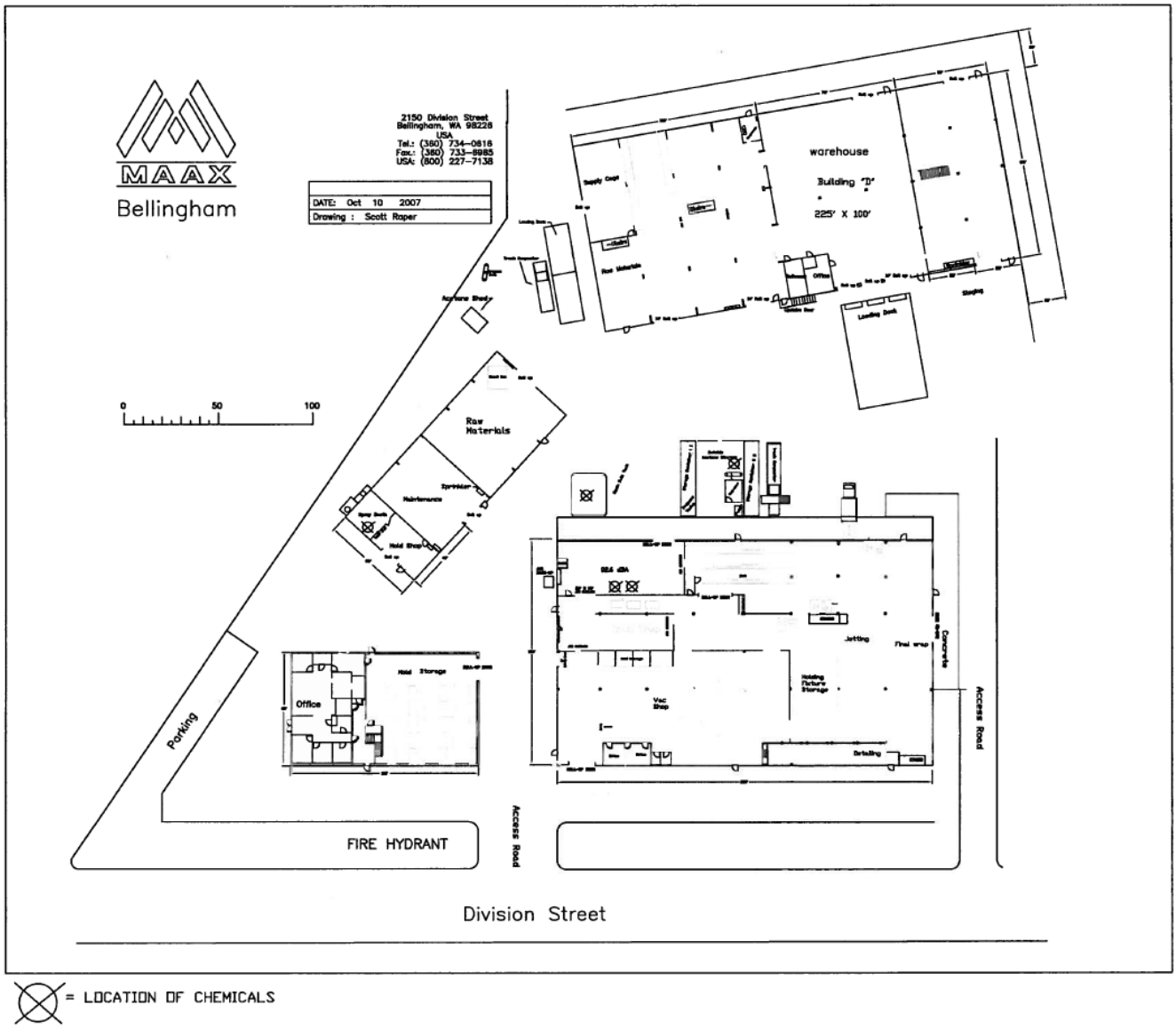

Figure 1.1-2 MAAX Plot Plan

1.2 Emission Unit Description

Tooling, or the creation of bath-ware molds, is performed using a tooling specific resin in the facility's mold shop. MAAX uses non-atomized mechanical application methods (spray-up) with vapor-suppressed tooling resins. After the mold is created, bath-ware units are produced by thermoforming a sheet of acrylic to the mold's shape. A mixture of production resins, fillers, fiberglass, and catalyst is sprayed onto the back of the shaped acrylic resulting in a cured laminate. MAAX's production resins are vapor-suppressed and applied using both non-atomized mechanical and manual layup methods. MAAX does not use any corrosion-resistant or high-strength (CR/HS) resins or gelcoats. MAAX does not add any organic-HAP containing materials to the resins supplied by the manufacturer, including styrene or methyl methacrylate monomer, in any form, and so the term 'neat resin plus' as used in the NESHAP accounts for only the neat resin used. The excess material is trimmed from the outer edges and drains are drilled. Shower bases and standard bathtubs continue through finishing processes, inspection, and packaging. Whirlpool bathtubs are further drilled and fitted with jets and a pump before these final

processes. Additional products such as a skirt (a panel designed to fit under the bathtub's lip and finish at floor level) are also manufactured at MAAX US Corp. Figure 1.2-1 demonstrates the general process flow through the facility's emission units as a piece of bath-ware is constructed.

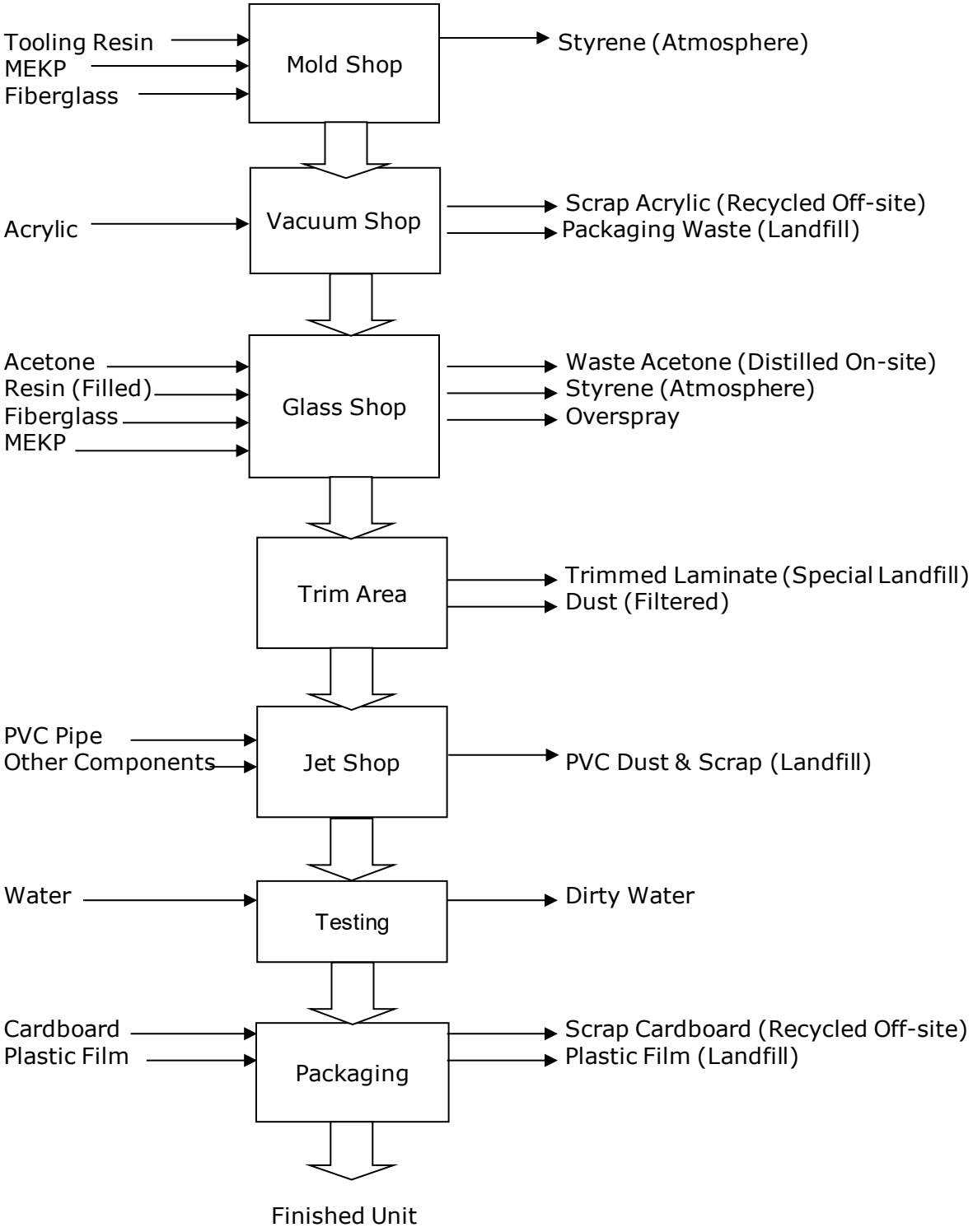

Figure 1.2-1 MAAX Process Flow Diagram

Gaseous air contaminants may be released from resin storage, mixing, application and curing, and from solvent evaporation. Particulate is generated from resin application and cutting and

sanding the products and molds. Combustion emissions result from process and small building heating appliances, all of which are exempt from minor NSR permitting and are considered insignificant. For purposes of organization, the operating permit program divides activities such as these into categories called emission units. Emission units are distinct activities or processes generating emissions that may be exhausted to the outside air. The air operating permit regulation, Washington Administrative Code (WAC) chapter 173-401, distinguishes small, generally inconsequential, emission units (insignificant) from emission units that generate notable amounts of air contaminants (significant). Table 1.2-1 below lists the significant emission units at the facility. See Section 1.6 of this document for a discussion of insignificant emission units.

Table 1.2-1 MAAX Significant Emission Unit Description

Emission Unit Process Name	Process Area and Emission Point Description	Emission Abatement Device	Process Description
EU-1 Spray and hand layup of polyester resin or resin and glass fiber	Building C Glass Shop Enclosed work area. Floor-level wall mounted collection with fiber or paper filters. Combined flow of seven vertically exhausting unobstructed stacks (28,000 cfm).	None	Spray layup is an open mold fiberglass fabrication process that uses mechanical non-atomized spraying and chopping equipment for application of catalyzed resin and reinforcing material. Hand layup is a fiberglass fabrication process in which reinforcing fibers are manually applied to a mold wetted with catalyzed resin mix. Reinforcing material and resin mix are layered to build laminate thickness. Both types of layup result in emissions of styrene and smaller quantities of volatile organic compounds. Spray layup also emits particulate from overspray. MAAX US CORP uses vapor-suppressed resins.
EU-2 Spray and hand layup of polyester resin or resin and glass fiber	Building B Mold Shop Enclosed work area. Floor-level wall mounted collection system with fiber or paper filters. One vertically exhausting unobstructed stack (9,500 cfm).	None	
EU-3 HAP-containing materials storage	Bulk Resin Storage Bulk resin storage drums, portable totes, and tanks with lids and seals.	None	

1.3 Permit Revisions during Second Renewal

The NWCAA received the application for the fourth air operating permit renewal on March 8, 2021. The following revisions have been made to the AOP during this renewal.

- Revised the source contact information and general permit information on the permit information page.
- Revised Sections 2 and 3 to update applicable requirement effective dates and be consistent with current NWCAA format and content and clarify NWCAA's authority to enforce applicable requirements in the introductory text of each section. In addition to rule citation date changes in Section 2, these updates included revising references to RCW 70.94 with current RCW 70A.15. In Section 3, rule and delegation letter citation dates were updated, and the following subsections (as numbered in AOP 011R4) were substantially revised or added to align with currently applicable NESHAP language:
    - 40 CFR Part 63 NESHAP

  - 3.3.3 Operation and Maintenance
  - 3.3.4 Startup, Shutdown, and Malfunction Plan
  - 3.3.9 Conduct of Performance Tests
  - 3.3.21 Notification of Compliance Status
- Revised Sections 4 and 5 to update them with current federal, state and NWCAA regulatory citations and their applicable requirements to reflect any new or revised applicable regulation and clarify NWCAA's authority to enforce applicable requirements in the introductory text of each section as well as pair the enforcement authority citation with each specific condition.

  Section 5 was revised in order to more closely reflect the multiple compliance options available to MAAX as currently configured, including application and resins currently in use at the facility, in 40 CFR 63 WWWW. Historically, MAAX has used multiple compliance options as necessary.
- Revised the list of inapplicable requirements in Section 6.

1.4 Enforcement History

The NWCAA took enforcement action against MAAX once during the previous permitting period. Violations are resolved through a combination of penalty assessments and corrective action taken by the source. Additional information about each violation can be obtained upon request to the NWCAA.

- Notice of Violation #4248 Issued June 27, 2017

The facility was issued a Notice of Violation for failing to submit the 2016 annual compliance certification, the second half 2016 semiannual monitoring report, and the second half 2016 semiannual 40 CFR 63 Subpart WWWW compliance report as required in the Air Operating Permit. The NWCAA assessed a fine of $1,000. The facility submitted the late reports promptly after notification. The facility paid the assessed fine and the enforcement action was resolved on October 24, 2017.

1.5 Periodic Reports

The MAAX AOP requires semiannual and annual reports to be submitted to the NWCAA as part of the facility's ongoing compliance demonstration. Semiannual reports require certification by the responsible corporate official of the truth, accuracy, and completeness of reports submitted during the previous six-month period. 40 CFR 63 Subpart WWWW requires that MAAX submit a semiannual compliance report, which is also certified. When submitting the annual compliance certification, the responsible corporate official certifies compliance with all applicable requirements in the AOP term by term, noting the method with which compliance is determined, and whether the facility was fully or intermittently in compliance with each term. During years when a permit renewal is issued, the annual compliance certification requires that compliance with each AOP be certified for the period in which they were applicable.

1.6 Insignificant Emission Units

The facility has emission units and activities determined to be insignificant under WAC 173-401-530, -532, and -533. In general, they are considered insignificant because they have low emission rates or generate only fugitive emissions. The Generally Applicable Requirements in Section 4 of the air operating permit apply to these units, although the testing, monitoring, recordkeeping, and reporting requirements do not apply. As specified in WAC 173-401-530(2)(a), no emission unit or activity subject to a federally enforceable requirement, other than generally applicable requirements of the state implementation plan, may qualify as insignificant. Table 1.6-1 below lists the insignificant emission units at the facility.

Table 1.6-1 Insignificant Emission Units and Activities at MAAX

Citation	Description	Process Area
WAC 173-401-533 (2)(i)	Welding using not more than one ton per day of welding rod.	Maintenance shop
WAC 173-401-533 (2)(r)	Space heaters and hot water heaters using natural gas and generating less than five million Btu/hr.	Warehouse heaters
WAC 173-401-533 (2)(s)	Tanks, vessels and pumping equipment, with lids or other appropriate closure for storage or dispensing of aqueous solution of inorganic salts, bases and acids	Resin emulsifier stations
WAC 173-401-533 (2)(d)	Operation, loading and unloading storage of butane, propane, or liquefied petroleum gas (LPG), storage tanks, vessel capacity under forty thousand gallons.	Propane fueled equipment: fork-lifts, shrink-wrap guns, etc.
WAC 173-401-532(10)	Internal combustion engines for propelling or powering a vehicle.	Trucks, forklifts
WAC 173-401-532(11)	Recreational fireplaces including the use of barbecues, campfires and ceremonial fires.	Company barbecues
WAC 173-401-532(25)	Presses and vacuum forming, for curing rubber and plastic products or for laminating plastics.	Thermoforming press
WAC 173-401-533(2)(e)	Combustion source less than 5 MMBtu/hr exclusively using natural gas.	Thermoforming press oven: 1,433,700 Btu/hr input heat capacity. Glass shop makeup air heater: 1,268,000 Btu/hr heat input capacity.
WAC 173-401-532(33)	Plant upkeep including routine housekeeping, preparation for and painting of structures or equipment, retarring roofs, applying insulation to buildings in accordance with applicable environmental and health and safety requirements and paving or stripping parking lots.	General plant maintenance
WAC 173-401-532(35)	Cleaning and sweeping of streets and paved surfaces.	All paved and concrete surfaces
WAC 173-401-532(38)	Laundering, dryers, extractors, tumblers for fabrics, using water solutions of bleach or detergents.	Clothes dryer
WAC 173-401-533 (2)(o)	Batch solvent distillation, not being greater than fifty-five gallons batch capacity.	Solvent distillation unit (15 gal.)
WAC 173-401-532(41)	Food preparing for human consumption including cafeterias, kitchen facilities and	Lunchrooms

	barbecues located at a source for providing food service on the premises.	
WAC 173-401-533 (3)(c)	Chemical or physical analytical laboratory operations or equipment including fume hoods and vacuum pumps.	Resin testing laboratory
WAC 173-401-532(43)	Lawn and landscaping activities.	Facility grounds
WAC 173-401-532(45)	General vehicle maintenance including vehicle exhaust from repair facilities.	Maintenance shop
WAC 173-401-532(48)	Natural and forced air vents and stacks for bathroom/toilet facilities.	All lavatories
WAC 173-401-532(49)	Office activities.	Buildings A, C, and D
WAC 173-401-532(54)	Fuel and exhaust emissions from vehicles in parking lots.	Entire facility
WAC 173-401-532(55)	Grinding, sawing, drilling, sanding or buffing either: metals, plastics, or wood, provided that: (a) Activity is performed indoors; (b) Particulate emission control in the immediate vicinity of the activity; (c) Exhaust from the particulate control is within the building housing the activity; (d) No fugitive particulate emissions enter the environment.	Trim area exhaust routed to interior of Bldg. C
WAC 173-401-532(70)	Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy, e.g., blueprint activity, photocopiers, mimeograph, telefax, photographic developing, and microfiche.	Copy machines
WAC 173-401-532(74)	Repair and maintenance activities, not involving installation of an emission unit and not increasing potential emissions of a regulated air pollutant.	Entire facility
WAC 173-401-532(79)	Solid waste (as defined in the WAC) containers.	Waste compactors
WAC 173-401-532(87)	Steam vents and safety relief valves.	Facility equipment
WAC 173-401-532(88)	Air compressors, pneumatically operated equipment, systems and hand tools.	Entire facility
WAC 173-401-532(94)	Process water and white water storage tanks.	Resin emulsifier containers
WAC 173-401-532(5)	Pressurized storage of oxygen, nitrogen, carbon dioxide, air, or inert gases.	Pressurized air
WAC 173-401-532(9)	Vents from rooms, buildings and enclosures that contain permitted emissions units or activities from which local ventilation,	Vents

	controls and separate exhaust are provided.	
WAC 173-401-532(51)	Sampling connections used exclusively to withdraw materials for laboratory analysis and testing.	Sample points

2 GENERAL REGULATORY REQUIREMENTS

This portion of the Statement of Basis identifies and discusses general regulatory applicability of a wide range of local, state and federal programs, orders, and requirements that apply broadly across the facility to various processes, process units, or equipment.

2.1 Federal Standards – Facility-Wide

2.1.1 40 CFR Part 63 - National Emission Standards for Hazardous Air Pollutants (NESHAP/MACT)

National Emission Standards for Hazardous Air Pollutants (NESHAP), also known as Maximum Achievable Control Technology (MACT) standards, apply to the emission of hazardous air pollutants (HAP) at existing sources, regardless of the construction or modification dates. NESHAP were developed to reduce emissions, by industrial source category, for the 187 HAP specified by Congress, including styrene.

MAAX is subject to 40 CFR Part 63 Subpart WWWW- NESHAP for Reinforced Plastic Composites Production. Reinforced plastic composites facilities produce a variety of reinforced plastic products, including fiberglass bathtubs and showers, automobile and recreational vehicle parts, storage tanks, and engine and tool covers. Subpart WWWW requires most existing major sources to incorporate pollution-prevention techniques in their production processes. These techniques include using raw materials containing low amounts of air toxics, non-atomized resin application, and covering open resin baths and tanks. Compliance assurance with this NESHAP is described in Section 5 of the AOP.

Since the last AOP renewal, EPA conducted a risk and technology review for Subpart WWWW (final rule effective March 20, 2020). EPA made changes to certain provisions such as:

- Startup/shutdown/malfunction requirements, and,
- Reporting requirements.

However, the numeric emissions limits of the standards remained the same. See https://www.federalregister.gov/documents/2020/03/20/2020-04661/national-emission-standards-for-hazardous-air-pollutants-boat-manufacturing-and-reinforced-plastic for additional information.

The NESHAP explicitly allows facilities to demonstrate compliance through a multitude of compliance options. Some options may be used in conjunction with one or more compliance demonstration methods. The source may choose any of the listed compliance options at any time, given the appropriate records are kept and the compliance option chosen is included with the following semiannual compliance report. Because the facility may switch between these options more frequently than the AOP will be renewed, and the facility has historically used multiple compliance options during a single permit period, all of the available options under which the facility, as currently operating (using specific resin application technologies and types of resins), may comply with the NESHAP are included. See the emission unit descriptions in Section 1.2 of this document for an accounting of the resin application technology and types of resins used by the facility.

Whenever a NESHAP applies to a facility, that NESHAP provides a table that specifies which parts of Subpart A (General Provisions) to 40 CFR 63 also apply. Specified parts of Subpart A to 40 CFR 63 apply to MAAX US Corp and are identified in Section 3 of the AOP. Conversely, if a part of Subpart A does not have specific requirement for the facility, it is not included in the AOP. If the requirement was something in the past that was a one-time requirement that has been completed, it is not in the AOP. Subpart A requirements tend to be applicable only when triggered by a particular action, such as an initial startup notice and an initial notification when a facility becomes subject to a standard under 40 CFR 63.

2.1.2 40 CFR Part 64 - Compliance Assurance Monitoring

40 CFR Part 64 - Compliance Assurance Monitoring (CAM) requires owners and operators to monitor the operation and maintenance of control equipment at large emission units to achieve a level of control that complies with applicable requirements. If owners and operators of these facilities find that their control equipment is not working properly, the CAM rule requires that action be taken to correct any malfunctions and to report such instances to the appropriate enforcement agency. Additionally, the CAM rule provides some enforcement tools that will help agencies require facilities to respond appropriately to the monitoring results and improve pollution control operations.

MAAX does not use any control devices, as these are defined in 40 CFR 64.1, to achieve compliance, and therefore CAM is not applicable to any pollutant-specific emission units within the facility.

2.1.3 40 CFR Part 68 - Risk Management Plan (RMP)

The goal of 40 CFR Part 68 and the risk management program is to prevent accidental releases of substances that can cause serious harm to the public and the environment from short-term exposures and to mitigate the severity of releases that do occur. If a facility contains the hazardous or flammable substances listed in 40 CFR 68.130 in an amount above the "threshold quantity" specified for that substance, the facility operator is required to develop and implement a risk management program.

MAAX does not have any of the substances in the threshold quantities listed in Table 1 to 40 CFR 68.130 and therefore it is not subject to the requirements of 40 CFR Part 68.

2.1.4 40 CFR Part 98 – Federal Mandatory Greenhouse Gas Emission Inventory Regulation

Requirements for mandatory greenhouse gas reporting are contained in 40 CFR Part 98. For a facility to be subject to 40 CFR Part 98, it must meet the requirements of either 1, 2, or 3 below:

1. A facility that contains any source category that is listed in Table A–3 of 40 CFR 98 Subpart A,

2. A facility that contains any source category that is listed in Table A–4 of 40 CFR 98 Subpart A that emits 25,000 metric tons CO2e or more per year in combined emissions from stationary fuel combustion units, or,

3. A facility that has stationary fuel combustion units with an aggregate maximum rated heat input of 30 MMBtu/hr or greater, and the facility emits 25,000 metric tons CO2e or more per year in combined emissions from all stationary fuel combustion sources.

MAAX does not contain any source category that is listed in tables A-3 or A-4 to subpart A to 40 CFR 98, and has no fuel combustion sources with an aggregate maximum rated heat input of 30 MMBtu/hr.

As a result, MAAX US Corp. is not subject to the requirements of 40 CFR Part 98.

2.2 State Standards – Facility-Wide

2.2.1 WAC Title 173 Chapter 441 – Reporting of Emissions of Greenhouse Gases

GHG are chemicals that contribute to climate change by trapping heat in the atmosphere. The greenhouse gases recognized by EPA and Ecology are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride

(SF_6). "Hydrofluorocarbons" or "HFCs" are a class of greenhouse gases primarily used as refrigerants, consisting of hydrogen, fluorine, and carbon.

Chapter 173-441 WAC, "Reporting of Emissions of Greenhouse Gases", adopts a mandatory greenhouse gas reporting rule for:

- Owners or operators of suppliers that supply applicable fuels sold in Washington state of which the complete combustion or oxidation would result in at least 10,000 metric tons of carbon dioxide annually; or
- Any listed facility that emits at least 10,000 metric tons of carbon dioxide equivalents (CO_2e) of greenhouse gases annually in the state.

MAAX is not subject to the requirements of Chapter 441 WAC because it is not an owner or operator of a supplier source category as listed in WAC 173-441-122(1)(a) and does not emit 10,000 metric tons of CO_2e annually in the state.

2.3 NWCAA Standards – Facility-wide

2.3.1 NWCAA Sections 530 and 535, General Nuisance and Odor Control Measures

MAAX is a potential odor source because it emits styrene. Styrene is a colorless liquid that has a sweet smell[1]. According to the EPA, indoor air is the principal route of styrene exposure for the general population. Average indoor air levels of styrene are in the range of 1 to 9 $\mu g/m^3$, attributable to emissions from building materials, consumer products, and tobacco smoke. The odor threshold for styrene is 0.32 parts per million (ppm)[2], or 1.47 mg/m^3. Regulatory action levels (the concentration of a substance to which most workers can be exposed without adverse effects) for workers exposed to styrene are orders of magnitude higher. The American Conference of Governmental and Industrial Hygienists' threshold limit value of 85 mg/m^3 expressed as a time-weighted average is one of the lowest action levels for styrene.

The styrene worker action level is provided as a reference only. It is not enforceable through the AOP. However, nuisance impacts to neighbors are enforceable and compliance assurance is discussed in AOP Section 4.

2.4 Orders – Facility-Wide

2.4.1 Consent Order and Assurance of Discontinuance, 2002

On December 24, 2002, MAAX entered into a consent order and assurance of discontinuance after a receiving Notice of Violation (NOV #3267). As of the third AOP renewal, the requirements of this order were fulfilled. The requirements are no longer included in the AOP.

2.4.2 Regulatory Order No. 005, 1995

Prior to becoming a Title V source, MAAX US Corp. was a synthetic minor source. On January 12, 1995, MAAX accepted a voluntary emission limit to stay out of the Title V program. This voluntary emission limit and conditions are recorded in Regulatory Order No. 005, issued by the NWCAA on January 12, 1995, and are summarized below:

[1] Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Styrene. U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1992.
[2] J.E. Amoore and E. Hautala. Odor as an aid to chemical safety: Odor thresholds compared with threshold limit values and volatilities for 214 industrial chemicals in air and water dilution. Journal of Applied Toxicology, 3(6):272-290. 1983.

- Emissions of styrene shall not exceed 19,500 pounds in any calendar year.
- MAAX US Corp. shall use AP-42 – based calculation methods to demonstrate compliance with the styrene emission limit.
- For each resin type, the quantities of resin in inventory, the quantities of resin additive used, the method of layup and the amount of resin applied by that method shall be recorded monthly in a logbook.
- The emission calculation results shall be submitted quarterly to the NWCAA.

The Regulatory Order was rescinded by the NWCAA with a letter to MAAX dated August 10, 1998. The reason for the rescindment was retraction of AP-42 emission factors by the EPA and issuance of new styrene emission factors by the Composite Fabricators Association. The new factors were used for a reassessment of styrene emissions at MAAX, which caused MAAX to be a major source for styrene. March 18, 1999 was established as the date by which MAAX had to submit a complete air operating permit application to the NWCAA.

2.4.3 Order of Approval to Construct 726, 2000

On March 1, 2000, the NWCAA issued to Order of Approval to Construct (OAC) 726 for installation and operation of an additional resin application gun at the facility.

The OAC requires that the control efficiency of the subject gun be equal or greater than that of non-atomized application technologies. This is inherent to the design of the spray gun and there are no ongoing compliance requirements related to the spray gun.

The OAC also required notification upon completion of installation of the affected resin application gun. No such notice was located in NWCAA files, but it is likely that the notice was provided via telephone.

The OAC has no remaining specific requirements for the facility, and so is not included in the AOP.

3 AIR OPERATING PERMIT ADMINISTRATION

In developing the AOP for MAAX, the NWCAA developed assumptions for the AOP and established permit elements. Assumptions are discussed in Section 4.1. Permit elements are presented in Section 4.2. Section 4.3 lists the AOP Public docket information. Finally, Section 4.4 lists the definitions and acronyms used throughout the SOB and AOP.

4.1 Permit Assumptions

The following describes the assumptions the NWCAA used in developing this Statement of Basis and AOP.

3.1.1 One-Time Only Requirements

Applicable requirements that were satisfied by a single past action on the part of the source are not included in the AOP but are discussed in the Statement of Basis. Regulations that require action by a regulatory agency, but not of the regulated source are not included as applicable permit conditions.

3.1.2 Federal Enforceability

Federally enforceable requirements are terms and conditions required under the Federal Clean Air Act (FCAA) or under any of its applicable requirements. Local and state regulations may become federally enforceable by formal approval and incorporation into the State Implementation Plan (SIP) or through other delegation mechanisms. Federally enforceable requirements are enforceable by the EPA and citizens. All applicable requirements in the permit including standard terms and conditions, generally applicable requirements, and specifically applicable requirements are federally enforceable unless identified in the permit as enforceable only by the state.

Most rules and requirements are followed by a date in parentheses. Two different versions (identified by the date) of the same regulatory citation may apply to the source if federal approval/delegation lags changes made to the Washington Administrative Code (WAC) or the NWCAA Regulation. For Washington Administrative Code (WAC) regulations, the date listed in parenthesis in the air operating permit represents the State Effective date. For NWCAA regulations, the date represents the most recent Board of Directors adoption date, which is identified as the "Passed" or "Amended" date in the NWCAA Regulation. The date associated with an OAC or PSD permit represents the issuance date of that new source review construction permit. For a federal rule, the date is the rule's most recent promulgation date.

Chapter 173-401 WAC is not federally enforceable although the requirements of this regulation are based on federal requirements for the air operating permit program. Upon issuance of the permit, the terms based on Chapter 173-401 WAC will become federally enforceable for the source.

3.1.3 Future Requirements

Applicable requirements that have been promulgated with future effective compliance dates may be included as applicable requirements in the permit. Some requirements that are not applicable until triggered by an action, such as the requirement to file a Notice of Construction application prior to building a new emission unit, are addressed within the standard terms and conditions section of the permit.

There are presently no pending applications to construct or modify MAAX US Corp. in such a way as to trigger New Source Review. MAAX US Corp. has certified in the permit renewal application that the facility will meet any future applicable requirements on a timely basis.

3.1.4 Compliance Options

MAAX did not request emissions trading provisions or specify more than one operating scenario in the air operating permit application; therefore, the permit does not address these options as allowed under WAC 173-401-650. This permit does not condense overlapping applicable requirements (streamlining) nor does it provide any alternative emission limitations.

There are certain emission units that are permitted to operate in different modes; for those units, all scenarios are written into the permit with a recordkeeping requirement to document under which scenario the emission unit is operating.

3.1.5 Gap Filling & Sufficiency Monitoring

Title V of the Federal Clean Air Act is the basis for 40 CFR Part 70, which is the basis for the State of Washington air operating permit regulation, Chapter 173-401 WAC. Title V requires that all air pollution regulations applicable to the source be called out in the air operating permit for that source. Title V also requires that each applicable regulation be accompanied by a federally enforceable means of "reasonably assuring continuous compliance". 40 CFR Part 70 and WAC 173-401-615 all contain a "gap-filling" provision to address situations where no monitoring is present. 40 CFR Part 70.6(c)(1) and WAC 173-401-630(1) contain authority to address situations where monitoring exists but is deemed to be insufficient. NWCAA relied upon these authorities to add monitoring where needed to the air operating permit (AOP).

Most cases where monitoring needed to be added were for older regulations that contained no monitoring. For example, NWCAA used its gap-filling authority to add monitoring for the 20% visible emission standard, NWCAA 451.1. The term "Directly Enforceable" is included in each AOP term where NWCAA added gap-filling.

There were also some limited cases where monitoring did exist but was found to be insufficient. NWCAA used its sufficiency monitoring authority (WAC 173-401-630(1)) to add monitoring in those cases. "Directly Enforceable" is included in the AOP term when NWCAA used its authority to supplement insufficient monitoring.

The type and frequency of monitoring added under the authorities in WAC 173-401-615 and WAC 173-401-630(1) were set based on the following factors:

1. Historical Compliance – NWCAA reviewed the facility's past compliance with the underlying requirement. This information helped inform the decision about monitoring frequency and stringency.
2. Margin of Compliance – The margin of compliance is a measure of whether the facility can easily achieve compliance with a requirement, or whether they operate close to an exceedance. NWCAA considered the facility's margin of compliance for each underlying requirements in setting monitoring for that requirement.
3. Variability of Process and Emissions – Processes that vary their production rates and/or emissions over time (e.g., batch loading of grain silos, VOC emissions from lumber drying kilns) require different monitoring from steady-state processes. NWCAA considered process and emission variability in setting monitoring.
4. Environmental Impact of a Problem – Exceedances of some permit requirements have greater environmental consequences than others. For example, a problem that causes an exceedance of a refinery sulfur plant limit could have a greater environmental impact than failing to use ultra-low sulfur diesel at an emergency generator. NWCAA considered the environmental impact of a problem in setting monitoring.
5. Clarity and Complexity – The requirements that apply to AOP facilities are numerous, varied, and can be complex. The greater number, variety, and complexity of requirements, the harder it is for a facility to understand and comply. NWCAA's goal is to

write clear, concise permits the facilities can understand. To help achieve this goal, when possible, NWCAA aligned additional monitoring with monitoring that the facility is already performing. This approach required careful thought. NWCAA reviewed the monitoring the facility is already performing to see if it was adequate to stand-in as monitoring for the permit term, and only used it if deemed adequate.

Table 4-1 lists where in the AOP NWCAA used its gap-filling monitoring authority.

Table 4-1: Gap-filling under WAC 173-401-615

AOP Terms	Description	Monitoring
4.2	Operation & maintenance	Monitor, keep records & report
4.3-4.11	Nuisance (contaminants, odors, PM, fugitives)	Written air contaminant response plan
4.12-4.16	Visible emissions	Visible emission observation monitoring
4.17-4.19	Emissions of sulfur compounds	Retain fuel specifications & purchase records
4.20	Sulfur in fuel	Retain fuel specifications & purchase records

Table 4-2 lists where in the AOP NWCAA used its sufficiency monitoring authority.

Table 4-2: Sufficiency Monitoring under WAC 173-401-630(1)

AOP Terms	Description	Monitoring
4.1	Required monitoring reports	Reporting periods identified

3.2 Permit Elements

The permit is organized in the following sequence:

Permit Information

Attest

Table of Contents

Section 1 - Emission Unit Identification

Section 2 - Standard Terms and Conditions

Section 3 - Standard Terms and Conditions for NSPS and NESHAP

Section 4 - Generally Applicable Requirements

Section 5 - Specific Applicable Requirements

Section 6 - Inapplicable Requirements

Section 7 – Definitions and Acronyms

AOP Sections 2 through 5 include citations to applicable requirements (e.g., regulations) and a summary of that requirement. In addition, Sections 4 and 5 include the monitoring, recordkeeping and reports (MR&R) obligations for each requirement.

3.2.1 Permit Information and Attest

The Information Page identifies the facility, the responsible corporate official, and the agency personnel responsible for permit preparation, review, and issuance. The Attest section provides NWCAA's authorization for the source to operate under the terms and conditions contained in the permit.

3.2.2 Emission Unit Identification – AOP Section 1

AOP Section 1 entitled "Emission Unit Identification" is a non-enforceable section of the permit that is meant to list and provide relevant information on significant emission units at the facility. It includes emission unit identification numbers, size of the unit, control equipment where applicable, fuel type, and other related comments. The emission unit identification number commonly used at the refiner is the process unit/area number followed by the equipment number.

3.2.3 Standard Terms and Conditions – AOP Sections 2 and 3

AOP Sections 2 and 3 entitled "Standard Terms and Conditions" contain administrative requirements and prohibitions that do not have ongoing compliance monitoring requirements. The citations giving legal authority to the Standard Terms and Conditions are provided in the section. At times, requirements are paraphrased. In this case the language of the cited regulation takes precedence over the paraphrased summary. For clarity and readability, the terms and conditions have been grouped by function. Similar requirements from the State and the NWCAA are grouped together where possible. There are several requirements included that are not applicable until triggered. An example of these would be the requirement to file a "Notice of Construction and Application for Approval" prior to construction a new emissions unit.

Several permit conditions in Section 2 of the AOP are labeled "Directly enforceable under WAC 173-401-615(1)(b) & (c), 10/17/02". These conditions are a clarification of the regulatory requirements, as the NWCAA interprets those requirements. "Directly enforceable" conditions are legal requirements with which the permittee must comply and are directly enforceable through the permit per NWCAA's gap-filling authority.

The Standard Terms and Conditions for National Emission Standards for Hazardous Air Pollutant (NESHAP), AOP Section 3, specifies administrative requirements or prohibitions with no ongoing compliance monitoring requirements. The conditions in this section are taken from the "General Provisions" of 40 CFR Part 63. They apply specifically to the affected sources, affected facilities, or stationary sources subject to the standards of 40 CFR Part 63.

3.2.4 Generally Applicable Requirements – AOP Section 4

AOP Section 4 entitled "Generally Applicable Requirements" identifies requirements that apply broadly to the facility. These requirements are generally not called out in OACs and instead are found as general air pollution rules in the NWCAA Regulation or the Washington Administrative Codes.

When referring to the tables in Sections 4 and 5, the first column lists the AOP term number and pollutant or type of requirement. The permit terms are numbered consecutively so that the reader may locate a listed requirement. Next, the citation column includes the legal citation which is a federally enforceable requirement unless listed as "state only". The "description" column is a paraphrase of the requirement and is not intended to be a legal requirement as it is for descriptive purposes only. The last column lists the monitoring, recordkeeping and reporting (MR&R) requirements. The MR&R is a summary of the underlying requirement cited in the "citation" column and is not directly enforceable. However, when there is text in the MR&R column that states, "Directly Enforceable", all text below that statement has been added by the NWCAA as part of the agency's gap-filling or sufficiency monitoring authority (discussed above),

found in WAC 173-401-615(b) and WAC 173-401-630, and these gap-filled requirements are enforceable.

3.2.5 Specifically Applicable Requirements – AOP Section 5

AOP Section 5 entitled "Specifically Applicable Requirements" lists requirements that are specific to the individual emission units within the facility. For each emission unit, permit terms are generally presented in the following manner: general, visual emissions (VE), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NOX), carbon monoxide (CO), volatile organic compounds (VOC) and hazardous air pollutants (HAP).

The emission limitations and monitoring, recordkeeping and reporting requirements are derived from the underlying requirements that are cited in the second column.

This section includes specific requirements from Subpart WWWW of 40 CFR Part 63.

3.2.6 Inapplicable Requirements – AOP Section 6

WAC 173-401-640 requires that the permitting authority to issue a determination regarding the applicability of requirements with which the source must comply. AOP Section 6 lists requirements that are deemed inapplicable to the facility. The basis for each determination of inapplicability is included.

3.2.7 Insignificant Emissions Units

Categorically exempt emissions units listed in WAC 173-401-532 are present at the facility. These emission units have very low, if any, emissions associated with their use and are therefore considered insignificant by regulation and not included in the air operating permit. See Table 1.6-1 of this document for a list of insignificant emission units and activities at the facility.

3.3 Public Docket

Copies of the MAAX's Air Operating Permit, permit application, and technical support documents are available online at www.nwcleanairwa.gov or at the following location:

Northwest Clean Air Agency
1600 South Second Street
Mount Vernon, WA 98273-5202

3.4 Definitions and Acronyms

Definitions are assumed to be those found in the underlying regulation. A short list of definitions has been included to cover those not previously defined.

An "applicable requirement" is a provision, standard, condition or requirement in any of the listed regulations or statutes as it applies to an emission unit or facility at a stationary source.

An "emission unit" is any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant.

A "permit" means for the purposes of the air operating permit program an air operating permit issued pursuant to Title 5 of the 1990 Federal Clean Air Act.

"Technology-Based Emission Standard" means a standard, the stringency of which is based on determinations of what is technologically feasible considering relevant factors.

"State" means for the purposes of the air operating permit program the NWCAA or the Washington State Department of Ecology.

The following is a list of Acronyms used in the Air Operating Permit and/or Statement of Basis:

ASIL	Acceptable source impact level
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
CAM	Compliance Assurance Monitoring (40 CFR 64)
CFR	Code of Federal Regulations
CO	Carbon monoxide
dsfc	Dry standard cubic foot
EPA	The United States Environmental Protection Agency
FCAA	Federal Clean Air Act
gr	grains (there are 7,000 grains in one pound)
ISO	International Organization for Standardization
MMBtu	Million British thermal units (units of energy)
MMBtu/hr	Million British thermal units per hour (units of power)
MR&R	Monitoring, recordkeeping and reporting requirements
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOC	Notice of Construction
NSR	New Source Review
NWCAA	Northwest Clean Air Agency
O_2	Oxygen
OAC	Order of Approval to Construct
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in diameter
ppmvd	parts per million volume, dry
QA/QC	Quality assurance/quality control
RCW	Revised Code of Washington
scf	standard cubic feet
SIP	State Implementation Plan
SO_2	Sulfur dioxide
STP	Standard Temperature and Pressure: 20° C (68° F) and 760 mm Hg (29.92 in. Hg) per NWCAA Regulation (e.g., applies to fuel sulfur limit) 288 K (15° C, 59° F) and 101.3 kPa (1 atmosphere) per ISO (e.g., applies to natural gas volume measurement)
VE	Visible emissions
VOC	Volatile Organic Compound
WAC	Washington Administrative Code

4 PREVIOUS CHANGES TO AOP 011R3

This section provides a summary of changes to AOP 011R3 but does not include a discussion of changes made during the current renewal (changes made to AOP 011R4). Changes incorporated into the current renewal are addressed in Sections 1-3 of this document.

Additional detail regarding construction permit history or issued OACs, can be found in the specific permitting documentation.

In accordance with WAC 173-401-730, the NWCAA has a legal requirement to incorporate new and revised OACs, regulatory orders, and regulations into the AOP. The March 2017 renewal met this requirement. The following changes were made to the AOP:

4.1.1 General Information and Attest

Dates were incremented generally by five years. As with the second permit renewal, the renewal application was hereafter due one year, rather than six months, before permit expiration.

4.1.2 Section 2 Standard Terms and Conditions

Section 2 of the AOP was updated with the current NWCAA standard version, which includes new and modified applicable regulations and updated reference dates.

4.1.3 Section 3 Standard Terms and Conditions for NESHAP

Section 3 of the AOP was updated with the current NWCAA standard version, modified to reflect the actual conditions and requirements at MAAX.

4.1.4 Sections 4 and 5 Generally and Specifically Applicable Requirements

Changes made to the Generally and Specifically Applicable Requirements sections in the previous AOP are summarized in the following list:

- Requirements from Assurance of Discontinuance from NOV #3267, signed December 24, 2002, and Assurance of Discontinuance from NOV #3313, signed May 22, 2003 have been removed from Section 5. These compliance requirements have been met, and the Assurance of Discontinuance for both NOVs has been closed.

Monitoring, reporting, and recordkeeping requirements (MR&R) in Section 7 of the AOP have been incorporated into Sections 4 and 5 Generally and Specifically Applicable Requirements to allow for proper citation. Section 7 has been removed.