

Order to Rescind Worksheet



Source: Mikron Industries Inc/Quanex	Order Number: 12408
Installation Address: 1034 6th Ave N Kent, WA 98032	Registration Number: 27386
Contact Name: Michael Gaboury	Contact Email: michael.gaboury@quanex.com
Applied Date: 11/27/2023	Contact Phone: (253) 393-7783
Engineer: Maggie Corbin	Inspector: Corina Frost

A. DESCRIPTION

For the Order to Rescind:

Under the authority of Puget Sound Clean Air Agency Regulation I, Section 3.03, General Regulatory Orders, this Order to Rescind to:

Mikron Industries Inc/Quanex

**1034 6th Ave N
Kent, WA 98032**

Spray coating operations permitted under Notice of Construction Order of Approval Nos. 6045 issued July 11, 1995, and 7344 issued May 22, 1998 are no longer authorized. This Order rescinds the limits and monitoring, recordkeeping and reporting conditions contained in Order No. 8297 issued December 14, 2000.

Facility

Michael Gaboury provided a description of current operations at the facility in response to a request for additional information (12/6/2023 e-mail). Mikron Industries Inc/Quanex is a PVC extrusion plant that manufactures lineals for door, window frames, and fencing components. This process mostly uses PVC powder resin that is mixed/batched with other powder ingredients and this powder is transferred into silos. Mikron Industries Inc/Quanex recycles out scrap from production runs and grinds up the out of spec lineals to small chips and then sends them through one of four pulverizers. This powder is reintroduced to virgin powder batches. Mikron Industries Inc/Quanex has white PVC and a couple of colors of the earth tone variety. From the silos, they are vacuum blower transferred to one of 29 extrusion lines. The PVC powder is gravity fed into the extruder where it is melted and extruded through a die to produce the shape of the lineal profile. From there it goes through a calibrator block and tank to assist with its final shape. Once it leaves the calibration table, it is pulled through a puller to a saw/hot knife to cut the continuous extruded profile to specific lengths. After they are cut, the lineals are stacked and wrapped for shipping.

Mikron Industries Inc/Quanex has a tooling maintenance department that cleans the dies and the calibration blocks as needed, and are stored when not in use. Mikron Industries Inc/Quanex also has a machine shop that fabricates both the dies and calibrator blocks.

Proposed Action

The applicant has requested the Agency rescind Regulatory Order 8297 which limits facility-wide emissions of hazardous air pollutants.



8297.pdf

In 2009, there was an initial discussion about rescinding the Order limiting HAP emissions since the facility was eliminating their spray booth and installing a new vacuum UV paint line (no spraying) using a coating that did not contain VOC. The SDS showing no VOCs was submitted to the Agency. The facility also noted that 80% of their lamination process would be moving out of state which would result in a significant reduction of methylene chloride.

In 2015, Mikron requested input on whether they could be reclassified as a natural minor since they had undergone significant operational changes and no longer emit any HAPs. At that time, the Agency engineers suggested that the facility submit an application to remove the emission cap. No application was received which was likely due to change in environmental staff at the facility. A monthly HAP report was submitted to the Agency on 7/10/16 verifying very low emissions of HAP (<0.5 tpy).

According to Michael Gaboury (e-mail sent 12/6/2023), the whole painting process was removed in January 2017 and the lamination process with associated methylene chloride usage was moved to Illinois in 2015.

Permit History

The facility currently has 4 grinder and pulverizing units registered with the Agency. One is associated with NOCOA 7065. Each unit has an associated baghouse with baghouses permitted under NOCOA 4175 and one permitted under NOCOA 7065.

Regulatory Order No. 8297 was issued on December 14, 2000 to limit emissions of HAPs below major source thresholds. The facility is required to monitor all products used at the facility that contribute to HAP and regulated pollutant emissions, and within 15 days of the end of each month, estimate monthly emissions of HAPs and regulated pollutants using a mass balance approach to demonstrate no exceedance of HAP limits.

There have been two spray booths and one vacuum coater permitted – these NOCOAs are all marked as inactive in our database and the associated equipment is no longer registered.

- NOCOA 6045 issued 7/11/95 for one dry filter spray booth for applying coatings to bare or worn metal.

- NOCOA 7005 issued 7/30/97 for a vacuum coater rated at 16,800 cfm.
- NOCOA 7344 for one dry filter booth 5/22/98.

Coatings associated with the spray coating operation resulted in potential emissions of hazardous air pollutants above major source thresholds which were capped under Order 8297. This Order clarifies that spray coating operations are not longer permitted at this facility. New operations would be required to obtain a permit in accordance with Regulation I, Article 6 requirements.

Three other NOCOA's have been marked as inactive including NOC 6724 issued 12/24/96 for a bulk conveyor system controlled by a dust collector, NOCOA 7672 for a wood flour dust and PVC component material transport system controlled by a Roto-Clone wet centrifugal collector, and NOCOA 9278 Model 100 polymer pulverizer rated at 1000 lb/hr controlled by dust collector.

It was previously determined that extrusion operations were categorically exempt from permitting under Regulation I, Section 6.03(c)(29) or (30). The facility must maintain documentation on-site to demonstrate that operations fall under this exemption.

- (29) Extrusion equipment used exclusively for extruding rubber or plastics where no organic plasticizer is present, or for pelletizing polystyrene foam scrap.
- (30) Equipment used for extrusion, compression molding, and injection molding of plastics, PROVIDED THAT the VOC content of all mold release products or lubricants is $\leq 1\%$ by weight.

B. DATABASE INFORMATION

Once the Order is rescinded, the status of this source would no longer be marked as an "Emission Capped" Source. The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria. The source is considered a "natural minor".

C. FEES AND ANNUAL REGISTRATION FEES

Fees have been assessed in accordance with the fee schedule in Regulation I, Section 3.03. The fees shall be due and payable within 30 days of the date of the invoice. All fees must be paid prior to issuance of the final Order to Rescind.

Fee Description	Cost	Amount Received (Date)
Regulatory Order Fee	\$ 4,000	
Cost of providing public notice	TBD	
Regulatory received		\$ 3,000 (11/27/2023)
Additional fee received		\$1000 (1/17/2024)
Total		\$4000 + public notice fees

Registration Fees:

Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 5.07.

Mikron Industries Inc/Quanex Quanex- Accounts Payable 388 South Main Street, Suite 700 Akron, OH 44311

November 18, 2023	20240106
Due Date:	Terms:
January 02, 2024	Net 45 Days
Facility ID (Registration #):	
27386	

Site Address: *Mikron Industries Inc/Quanex
1034 6th Ave N, Kent, WA 98032*

The annual registration fee is required by Washington State law and Puget Sound Clean Air Agency's Regulation I.

Facility Fees and Applicable Regulations	Charges
Base Fee for Registered Sources. Reg I, 5.07(c)	\$ 1,350.00
Reg I, 5.03(a)(2) - Facilities subject to federally enforceable emission limitations	
Reg I, 5.03(a)(6) - Facilities with particulate control equipment (>= 2,000 cfm)	
Additional Fees:	
Reg I, 5.07(c)(2) - Facilities subject to federally enforceable emission limitations	\$ 2,670.00
	\$ <u>4,020.00</u>
Fee Totals	
TOTAL REGISTRATION FEE	\$ 4,020.00
<i>The Total Registration Fee is due by January 02, 2024. If unpaid after January 02, 2024, the facility may be subject to enforcement action with civil penalties (Reg I, 5.07(b)).</i>	

Once the limits are rescinded, the additional fees associated with Regulation I, Section 5.07(c)(2) will no longer apply. The facility will be assessed the base registration fee in accordance with Regulation I, Section 5.07(c) which is currently \$1,350.

Facility-wide Emissions

Actual Emissions

Based on a review, actual emissions were reported to the Agency from 1997 to 2008:

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
HAP	7.2	8.3	5.7	4.7	4.8	3.8	3.2	2.1	2.7	3.1	2.7	2.5
TAC	7.2	8.3	5.7	5.8	5.3	7.4	8.0	5.9	6.0	7.4	8.0	5.4
VOC				2.6	7.2	11.0	13.6	9.4	22.2	21.9	22.6	16.2

Emissions were not reported to the Agency after 2008 although requested annually. For some years, the source did respond stating that emissions were below required reporting thresholds in the Agency regulations.

A monthly report was submitted in May of 2009 which showed HAP emissions were approximately 2 tpy with methylene chloride emissions at approximately 1 tpy. MEK emissions were under 6 tons per year – MEK is a VOC but not a HAP.

The applicant provided information on the products currently being used at the facility. There are no hazardous air pollutants or toxic air pollutants in the products. Both the breakthrough solvent and the WD40 are low vapor pressure solvents so the product would have a low evaporation rate. However, as a worst-case scenario assuming all VOCs were emitted, actual emissions would be less than 2.5 tons/year:

Chemical		Density	Naphtha, Aliphatic Hydrocarbon Solvent	
CAS			64742-48-9, 64742-89-8, 64742-95-6	
VOC	lbs/gal	Yes		
HAP			No	
TAC			No	
Material	Usage (gal/yr)			lb/yr
Breakthrough Solvent	55	6.39	100%	351.5
WD40	220	4.32	100%	950.7
109385***Rule 66 MINERAL SP DR	550	6.47	100%	3560.7
TOTAL VOC				4862.9 lb/yr 2.4 tpy

Potential emissions are difficult to assess, but the facility would be required to report VOC emissions if they exceeded 25 tons/year. The mineral spirits are the largest source of VOCs and used for cleaning purposes to remove was buildup on PVC extruder lineals so unlikely to have a significant increase in emissions without triggering permitting of emission sources under Regulation I, Article 6.

For particulate matter, assuming the 4 dust collectors are the emission points and the emission limit for each is 0.05 gr/dscf (Reg I, Section 9.09 limit):

$$8,000 \text{ cfm} * 0.05 \text{ gr/dscf} * (1/7000 \text{ lb/gr}) * 60 \text{ min/hr} * 8760 \text{ hr/yr} = 15 \text{ tpy}$$

D. OPERATING PERMIT OR PSD

The facility is not a Title V air operating permit source because PTE is below Title V applicability thresholds and criteria. The source is considered a “**natural minor**”.

E. APPLICABLE RULES & REGULATIONS

Puget Sound Clean Air Agency Regulations

SECTION 5.05 (c): The owner or operator of a registered source shall develop and implement an operation and maintenance plan to ensure continuous compliance with Regulations I, II, and III. A

copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall include, but not be limited to, the following:

- (1) Periodic inspection of all equipment and control equipment;
- (2) Monitoring and recording of equipment and control equipment performance;
- (3) Prompt repair of any defective equipment or control equipment;
- (4) Procedures for startup, shut down, and normal operation;
- (5) The control measures to be employed to ensure compliance with Section 9.15 of this regulation; and
- (6) A record of all actions required by the plan.

The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 9.03: (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:

- (1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
- (2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).

(b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.

(c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf.

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:

- (1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
- (2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
- (3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle

undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

REGULATION I, SECTION 9.20(a): It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

Washington State Administrative Code

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

F. PUBLIC NOTICE

This project meets the criteria for mandatory public notice under WAC 173-400-171(3) since this is a modification of a WAC 173-400-091 synthetic minor limit.

A notice of application was posted on the Agency's website for 15 days. No requests or responses were received. A copy of the website posting is below:

New Construction Projects

Company	Address	Project Description	Date Posted	Contact Engineer
Mikron Industries Inc/Quanex	1034 6th Ave N, Kent, WA 98032	The facility is requesting to remove their facility-wide emission limits.	11/30/23	Maggie Corbin

A 30-day public comment period shall be held from 1/25/24 through 2/26/24. Notices that the draft materials were open to comment were published in the Kent Reporter and Daily Journal of Commerce on 1/26/24. The Agency posted the application and the draft worksheet on the Agency's website during the comment period.

<comments received, if applicable>

G. RECOMMENDED CONDITION

Spray coating operations permitted under Notice of Construction Order of Approval Nos. 6045 issued July 11, 1995 and 7344 issued May 22, 1998 are no longer authorized. This Order rescinds the limits and

monitoring, recordkeeping and reporting conditions contained in Order No. 8297 issued December 14, 2000.

H. CORRESPONDENCE AND SUPPORTING DOCUMENTS

E-mail sent from Michael Gaboury on 12/6/2023 included in Agency EMS and in the electronic Order 12408 folder as supplementary information to the application.

I. REVIEWS

Reviews	Name	Date
Engineer:	Maggie Corbin	12/7/2023
Inspector:	Corina Frost	12/8/2023
Second Review:	John Dawson	12/7/2023
Applicant Name:	Michael Gaboury	12/20/2023