

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
OFFICE OF THE DIRECTOR

In the matter of administrative proceedings
against **NEUVOKAS CORPORATION**, a
corporation organized under the laws of the
State of Michigan and doing business at
3206 Number 6 Road, in the City of Ahmeek,
County of Keweenaw, State of Michigan

AQD No. 2024-11

ID: U422100057

STIPULATION FOR ENTRY OF FINAL ORDER
BY CONSENT

This proceeding resulted from allegations by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) against Neuvokas Corporation (Company), a corporation organized under the laws of the State of Michigan and doing business at 3206 Number 6 Road, City of Ahmeek, County of Keweenaw, State of Michigan, with Identification Number (ID) U422100057. EGLE alleges that the Company is in violation of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.5501 *et seq.* and Rule 901 of the Michigan Air Pollution Control Rules, Mich Admin Code, R 336.1901 (Rule 901). Specifically, EGLE alleges that the Company emitted air contaminants from the facility that caused unreasonable interference with the comfortable enjoyment of life and property on August 6, 2021, December 1, 2021, June 15, 2023, and October 18, 2023, as cited herein and in the Violation Notices dated August 10, 2021, December 8, 2021, June 29, 2023, and October 20, 2023. The Company and EGLE stipulate to the termination of this proceeding by entry of a Stipulation for Entry of a Final Order by Consent (Consent Order).

The Company and EGLE stipulate as follows:

1. The NREPA MCL 324.101 *et seq.*, is an act that controls pollution to protect the environment and natural resources in this State.
2. Article II, Pollution Control, Part 55 of the NREPA (Part 55), MCL 324.5501 *et seq.*, provides for air pollution control regulations in this State.
3. Executive Order 2019-06 renamed the Michigan Department of Environmental Quality as EGLE, and EGLE has all statutory authority, powers, duties, functions, and responsibilities to administer and enforce all provisions of Part 55.

4. The EGLE Director has delegated authority to the Director of the AQD (AQD Director) to enter into this Consent Order.

5. The termination of this matter by a Consent Order pursuant to Section 5528 of Part 55, MCL 324.5528, is proper and acceptable.

6. The Company and EGLE agree that the signing of this Consent Order is for settlement purposes only and does not constitute an admission by the Company that the law has been violated.

7. This Consent Order becomes effective on the date of execution (Effective Date) by the AQD Director.

8. The Company shall achieve compliance with the aforementioned regulations in accordance with the requirements contained in this Consent Order.

COMPLIANCE PROGRAM AND IMPLEMENTATION SCHEDULE

9. On and after the Effective Date of this Consent Order, the Company shall comply with Rule 901.

10. Stack Installation

A. No later than thirty (30) days after the Effective Date of the Consent Order, the Company shall complete the installation of a vertical stack for the curing end of the Gen3 manufacturing line. The vertical stack shall be constructed to be at least 1.5 times the building height and shall follow good engineering practices for process air collection and dispersion techniques.

B. The Company shall notify the AQD Marquette District Supervisor, in writing, no later than seven (7) days after the completion of the condition described in paragraph 10.A.

11. Nuisance Minimization Plan for Odors

A. On and after the Effective Date of this Consent Order, the Company shall comply with the Nuisance Minimization Plan for Odors (NMPO). The NMPO is attached as Exhibit A and the NMPO, as amended, shall be enforceable under this Consent Order.

B. Upon written request from the AQD Marquette District Supervisor to revise the NMPO, the Company shall submit a revised NMPO to the AQD Marquette District Supervisor within

thirty (30) days of receipt of the request. In addition, the Company may submit a written notice of proposed changes to the NMPO to the AQD Marquette District Supervisor. Within thirty (30) days of receiving the revised NMPO from the Company, the AQD will in writing: (1) approve, in whole or in part, the submission; (2) approve, in whole or in part, the submission upon specified conditions; or (3) disapprove, in whole or in part, the submission, requiring the Company to correct the deficiencies. The Company shall, within thirty (30) days or such longer time as specified by the AQD in such notice, address any requested changes or deficiencies and resubmit the plan for approval. Upon approval, the revised NMPO shall be enforceable under this Consent Order.

12. Evaluation of Ventilation and Control System

A. On April 30, 2024, the Company submitted to the AQD for review and approval a proposal from a third-party consultant to conduct an evaluation of the facility's ventilation and control system attached as Exhibit B. No later than thirty (30) days after the Effective Date of the Consent Order, the Company's third party consultant shall complete the approved evaluation as described in the Services and Deliverables section of Exhibit B, and the Company shall submit to the AQD Marquette District Supervisor the third party evaluation report.

B. No later than forty-five (45) days after submitting the evaluation described in paragraph 12.A, the Company shall submit to the AQD Marquette District Supervisor, for review and approval, an implementation schedule for the corrective actions that the Company proposes to implement, and for any corrective actions that the Company does not propose to undertake, the Company shall also provide justification for why the corrective measures will not be implemented. Upon the AQD's approval, the implementation schedule for corrective actions shall be incorporated into the NMPO and enforceable under this Consent Order.

C. The Company shall notify the AQD Marquette District Supervisor, in writing, no later than seven (7) days after completion of each corrective actions described in the implementation schedule.

13. Force Majeure

A. The Company shall perform the requirements of this Consent Order within the time limits established herein, unless performance is prevented or delayed by events that constitute a "Force Majeure." Any delay in the performance attributable to a "Force Majeure" shall not be

deemed a violation of the Company's obligations under this Consent Order in accordance with this section.

B. For the purpose of this Consent Order, "Force Majeure" means an occurrence or nonoccurrence arising from causes not foreseeable, beyond the control of, and without the fault of the Company, such as but not limited to: an Act of God, untimely review of permit applications or submissions by EGLE or other applicable authority, and acts or omissions of third parties that could not have been avoided or overcome by the Company's diligence and that delay the performance of an obligation under this Consent Order. "Force Majeure" does not include, among other things, unanticipated or increased costs, changed financial circumstances, or failure to obtain a permit or license as a result of the Company's actions or omissions.

C. The Company shall notify EGLE, by telephone or email, within forty-eight (48) hours of discovering any event that may cause a delay in its compliance with any provision of this Consent Order. Verbal notice shall be followed by written notice within ten (10) calendar days and shall describe, in detail, the anticipated length of delay, the precise cause or causes of delay, the measures taken by the Company to prevent or minimize the delay, and the timetable by which those measures shall be implemented. The Company shall adopt all reasonable measures to avoid or minimize any such delay.

D. Failure of the Company to comply with the notice requirements and time provisions under paragraph 13.C to the extent practicable shall render this paragraph 13 void and of no force and effect as to the particular incident involved. EGLE may, at its sole discretion and in appropriate circumstances, waive in writing the notice requirements of paragraph 13.C above.

E. If the parties agree that the delay or anticipated delay were beyond the control of the Company, this may be so stipulated, and the parties to this Consent Order may agree upon an appropriate modification of this Consent Order. However, EGLE is the final decision-maker on whether or not the matter at issue constitutes a "Force Majeure". The burden of proving that any delay was beyond the reasonable control of the Company, and that all the requirements of this paragraph 15 have been met by the Company, rests with the Company.

F. An extension of one compliance date based upon a particular incident does not necessarily mean that the Company qualifies for an extension of a subsequent compliance date without providing proof regarding each incremental step or other requirement for which an extension is sought.

GENERAL PROVISIONS

14. This Consent Order in no way affects the Company's responsibility to comply with any other applicable state, federal, or local laws or regulations, including without limitation, any amendments to the federal Clean Air Act, 42 USC 7401 *et seq.*, Part 55, or their rules and regulations, or the State Implementation Plan.

15. This Consent Order constitutes a civil settlement and satisfaction as to the resolution of the violations specifically addressed herein; however, it does not resolve any criminal action that may result from these same violations.

16. Within thirty (30) days after the Effective Date of this Consent Order, the Company shall pay to the General Fund of the State of Michigan, in the form of checks made payable to the "State of Michigan" and mailed to the Michigan Department of Environment, Great Lakes, and Energy, Accounting Services Division, Cashier's Office, P.O. Box 30657, Lansing, Michigan 48909-8157, a settlement amount of \$11,000.00. This total settlement amount shall be made in three (3) payments. The payments are due on the following dates: an initial payment of \$4,000.00 shall be paid within thirty (30) days of the Effective Date of this Consent Order; the second payment of \$3,500.00 shall be paid within six (6) months of the Effective Date of this Consent Order, and a final payment of \$3,500 shall be paid within one year of the Effective Date of this Consent Order. To ensure proper credit, all payments made pursuant to this Consent Order shall include the "Payment Identification Number AQD40336" on the front of the check and/or in the cover letter with the payment. This settlement amount is in addition to any fees, taxes, or other fines that may be imposed on the Company by law.

17. On and after the Effective Date of this Consent Order, if the Company fails to comply with paragraph 9 of this Consent Order, the Company is subject to a stipulated fine of up to \$5,000.00 per violation per day. On and after the Effective Date of this Consent Order, if the Company fails to comply with paragraph 10.A, 11.A, or 12.A, of this Consent Order, the Company is subject to a stipulated fine of up to \$2,500.00 per violation per day. On and after the Effective Date of this Consent Order, if the Company fails to comply with paragraph 10.B, 11.B, 12.B, or 12.C, of this Consent Order, the Company is subject to a stipulated fine of up to \$1,250.00 per violation per day. The amount of the stipulated fines imposed pursuant to this paragraph shall be within the discretion of EGLE. Stipulated fines submitted under this Consent Order shall be by check, payable to the State of Michigan within thirty (30) days after written demand and shall be mailed to the Michigan Department of Environment, Great Lakes, and Energy, Accounting Services Division, Cashier's

Office, P.O. Box 30657, Lansing, Michigan 48909-8157. To ensure proper credit, all payments shall include the "Payment Identification Number AQD40336-S" on the front of the check and/or in the cover letter with the payment. Payment of stipulated fines shall not alter or modify in any way the Company's obligation to comply with the terms and conditions of this Consent Order.

18. The AQD, at its discretion, may seek stipulated fines or statutory fines for any violation of this Consent Order which is also a violation of any provision of applicable federal and state law, rule, regulation, permit, or EGLE administrative order. However, the AQD is precluded from seeking both a stipulated fine under this Consent Order and a statutory fine for the same violation.

19. To ensure timely payment of the settlement amount assessed in paragraph 16 and any stipulated fines assessed pursuant to paragraph 17 of this Consent Order, the Company shall pay an interest penalty to the State of Michigan each time it fails to make a complete or timely payment under this Consent Order. The interest payment shall be determined at a rate of interest that is equal to one percent (1%) plus the average interest rate paid at auctions of 5-year United States treasury notes during the six months immediately preceding July 1 and January 1, as certified by the state treasurer, compounded annually, and using the full increment of amount due as principal, calculated from the due date specified in this Consent Order until the date that delinquent payment is finally paid in full. Payment of an interest penalty by the Company shall be made to the State of Michigan in accordance with paragraph 16 of this Consent Order. Interest payments shall be applied first towards the most overdue amount or outstanding interest penalty owed by the Company before any remaining balance is applied to subsequent payment amount or interest penalty.

20. The Company agrees not to contest the legal basis for the settlement amount assessed pursuant to paragraph 16. The Company also agrees not to contest the legal basis for any stipulated fines assessed pursuant to paragraph 17 of this Consent Order but reserves the right to dispute in a court of competent jurisdiction the factual basis upon which a demand by EGLE of stipulated fines is made. In addition, the Company agrees that said fines have not been assessed by EGLE pursuant to Section 5529 of Part 55, MCL 324.5529, and therefore are not reviewable under Section 5529 of Part 55.

21. This compliance program is not a variance subject to the 12-month limitation specified in Section 5538 of Part 55, MCL 324.5538.

22. This Consent Order shall remain in full force and effect for a period of at least three (3) years. Thereafter, this Consent Order shall terminate only upon written notice of termination issued

by the AQD Director. Prior to issuance of a written notice of termination, the Company shall submit a request to the AQD Director at the Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division, P.O. Box 30260, Lansing, Michigan 48909-7760, consisting of a written certification that the Company has fully complied with all the requirements of this Consent Order and has made all payments including all stipulated fines required by this Consent Order. Specifically, this certification shall include: (i) the date of compliance with each provision of the compliance program and the date any payments or stipulated fines were paid; (ii) a statement that all required information has been reported to the AQD District Supervisor; (iii) confirmation that all records required to be maintained pursuant to this Consent Order are being maintained at the facility; and, (iv) such information as may be requested by the AQD Director. On or after the effective period has elapsed, the AQD Director reserves the right to terminate this Consent Order in lieu of receiving a written request for termination from the Company and may independently determine that the terms and conditions of this Consent Order have been met.

23. In the event the Company sells or transfers the facility, with ID: U422100057, it shall advise any purchaser or transferee of the existence of this Consent Order in connection with such sale or transfer. Within thirty (30) calendar days of such transaction, the Company shall also notify the AQD Marquette District Supervisor, in writing, of such sale or transfer, the identity and address of any purchaser or transferee, and confirm the fact that notice of this Consent Order has been given to the purchaser and/or transferee.

24. Prior to the Effective Date of this Consent Order and pursuant to the requirements of Sections 5511 and 5528(3) of Part 55, MCL 324.5511 and MCL 324.5528(3), the public was notified of a 30-day public comment period and was provided the opportunity for a public hearing.

25. Section 5530 of Part 55, MCL 324.5530, may serve as a source of authority but not a limitation under which this Consent Order may be enforced. Further, Part 17 of the NREPA, MCL 324.1701 *et seq.*, and all other applicable laws and any other legal basis or applicable statute may be used to enforce this Consent Order.

26. The Company hereby stipulates that entry of this Consent Order is a result of an action by EGLE to resolve alleged violations of its facility located at 3206 Number 6 Road, City of Ahmeek, County of Keweenaw, State of Michigan. No other locations, if any, are included in this Consent Order. The Company further stipulates that it will take all lawful actions necessary to fully comply with this Consent Order, even if the Company files for bankruptcy in the future and shall not discharge its compliance obligations under bankruptcy law.

The undersigned certifies that he/she is fully authorized by the Company to enter into this Consent Order and to execute and legally bind the Company to it.

NEUVOKAS CORPORATION

Print Name and Title

Signature

Date

Approved as to Content:

Approved as to Form:

Annette Switzer, Director
AIR QUALITY DIVISION
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES,
AND ENERGY

Margaret Bettenhausen, First Assistant
AIR AND WATER SECTION
ENVIRONMENT, NATURAL RESOURCES,
AND AGRICULTURE DIVISION
DEPARTMENT OF ATTORNEY GENERAL

Dated: _____

Dated: _____

FINAL ORDER

The Director of the Air Quality Division having had opportunity to review this Consent Order and having been delegated authority to enter into Consent Orders by the Director of the Michigan Department of Environment, Great Lakes, and Energy pursuant to the provisions of Part 55 of the NREPA and otherwise being fully advised on the premises,

HAS HEREBY ORDERED that this Consent Order is approved and shall be entered in the record of EGLE as a Final Order.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Annette Switzer, Director
Air Quality Division

Effective Date: _____



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This document covers the background of odor mitigation at Neuvokas, open items that are still in development, and it covers the timelines for updates that are currently in-process

Neuvokas Odor Mitigation Background

Background

Neuvokas manufactures composite rebar in Ahmeek, MI and was founded in 2013 with the goal of creating a manufacturing process that would allow composite rebar to reach price parity with steel rebar. Neuvokas developed a proprietary process that operates in hundreds of feet per minute vs. the inches per minute that is state-of-the-art in typical pultrusion. Neuvokas refurbished a pre-1900 building that serviced the local mines and revitalized a location that was becoming a hazard to the local community. This facility has housed many different manufacturing companies since 1900, including manufactured home production and a screw machine shop.

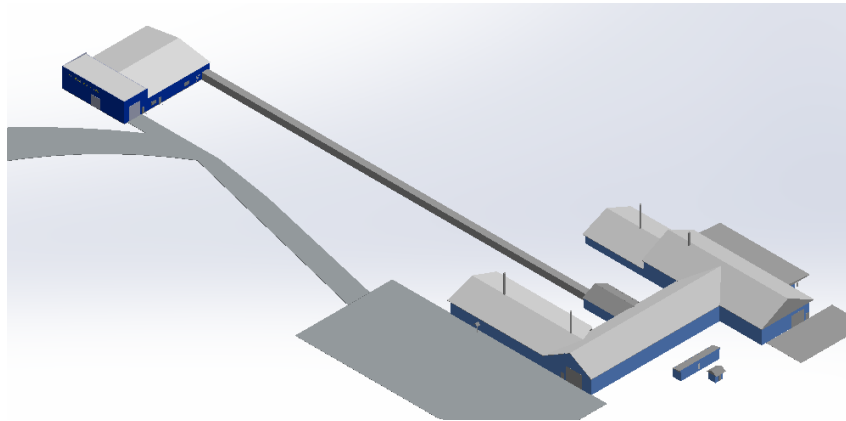


Figure 1. Current representation of the NVKS facility in Ahmeek, MI

The Neuvokas facility has been producing rebar for sales since 2016 with the largest jump in quantity being between 2021 and 2022. As manufacturing has increased Neuvokas has had to implement new manufacturing lines, pump systems, material handling methods, and everything else that is necessary to support rapidly growing manufacturing operations. The resin system that is used is a polyolefin chemistry that has an odor that can be picked up on the parts per billion (PPB) level vs. a parts per million (PPM) level. This means as sales and corresponding production levels have increased the odor challenge has become a larger issue. Even before violation notices this resin smell was a focus for process control.

Air Study and Violation History

In January of 2021 an air study analysis was completed and issued by Neuvokas to EGLE. At the end of January 2021 a on-site inspection report was released by EGLE summarizing the manufacturing process based on information provided.



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The first violation received by EGLE was on August of 2021 with the second violation coming in December of 2021. These violations both documented R 336.1901 violations and describe odor intensities of levels 3-4 near the Neuvokas facility.

The most recent violation was on June 15th, 2023. This was during the later half of a Ecosorb test trial. EGLE personnel were onsite and detected strong odors with sufficient intensity, frequency, and duration to be in violation of Rule 901(b). A clogged Ecosorb nozzle was found at this time and this could have contributed to the violation. Carbon was also being used at this point, so odor mitigation was in place.

It is not entirely known why on this date odors reached this intensity, considering a week of known improvements in overall odor release.

With each violation Neuvokas has provided responses in the timeframe required. These responses included current and updated odor mitigation items. Neuvokas also has worked to provide EGLE with regular updates on projects in biweekly or monthly timeframe and has asked EGLE for input on the effectiveness of certain projects as they were implemented and completed.

Neuvokas Odor Data Collection and Progress Made

Since June of 2022 Neuvokas has used odor measurements throughout the facility to determine effectiveness of various solutions with the goal of correlating between neighborhood complaints and total odor emissions. Odor emissions is the combined emissions that leave the facility. This is primary the smell from the polyolefin resin system, but it can include any solvents or treatments that are being used as part of odor mitigation. The Neuvokas facility can be seen below in Figures 2 and 3 with information provided on the locations of Gen1, Gen2, and Gen3 manufacturing lines.

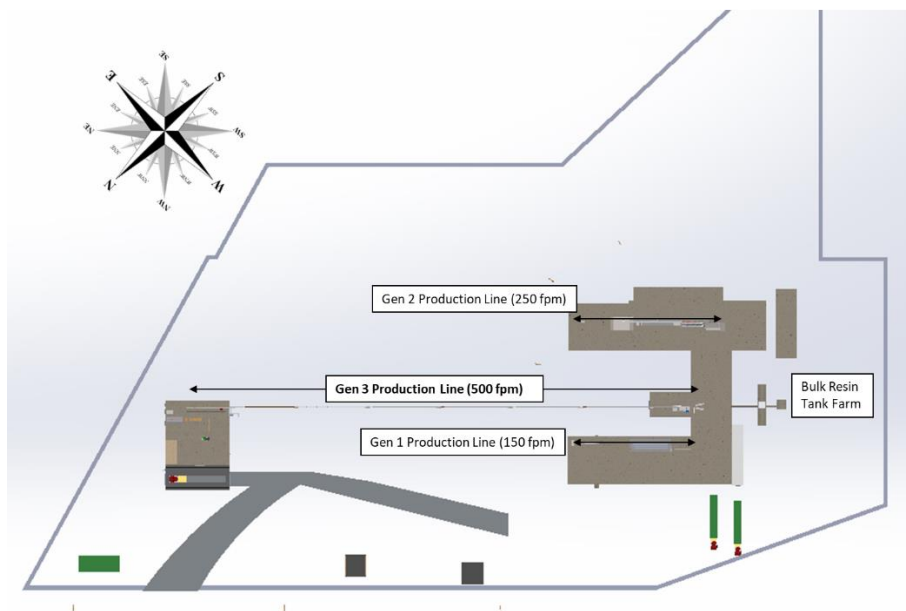


Figure 2. Facility overview with property lines



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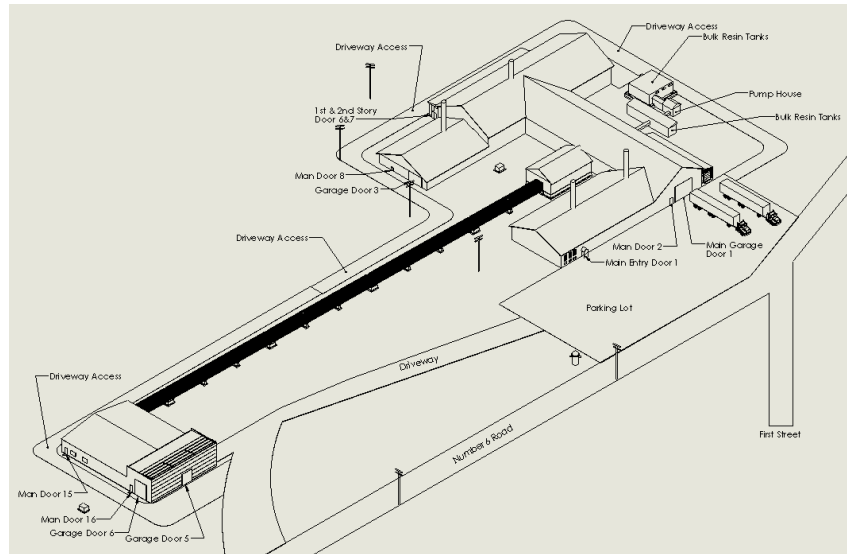


Figure 3. Facility overview with roads

Figure 4 shows odor emissions between June of 2022 and May of 2024. June of 2022 matches when carbon housings were installed on both manufacturing lines. As has been discussed in previous reports prior to this date improvement projects focused on exhaust stacks, air flow rates, and air flow velocity. The overall goal was to get the odors up and away from the local neighborhood. It should be noted that the period of time between November 2022 and January 2023 the entire facility was shutdown with no rebar being produced. Figures below show locations of stacks, fresh air intakes and exhaust pickup locations.

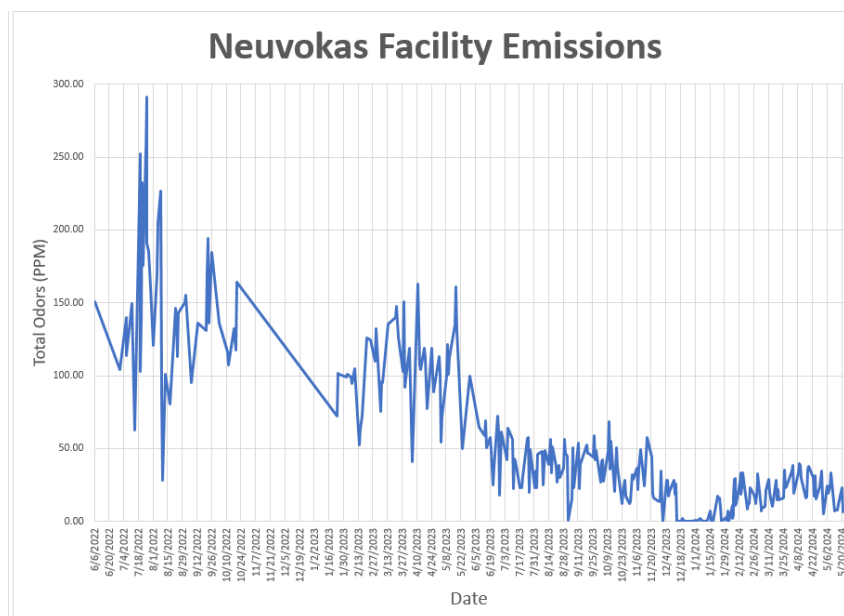


Figure 4. Chart of odor emissions from June 2022 to present



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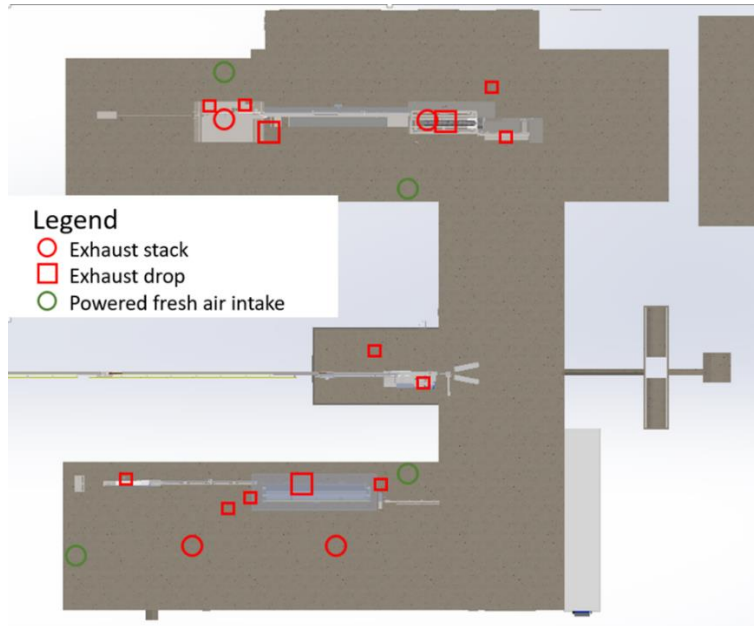


Figure 5. Exhaust stacks, drops and powered fresh air intakes in NeuvoKas facility

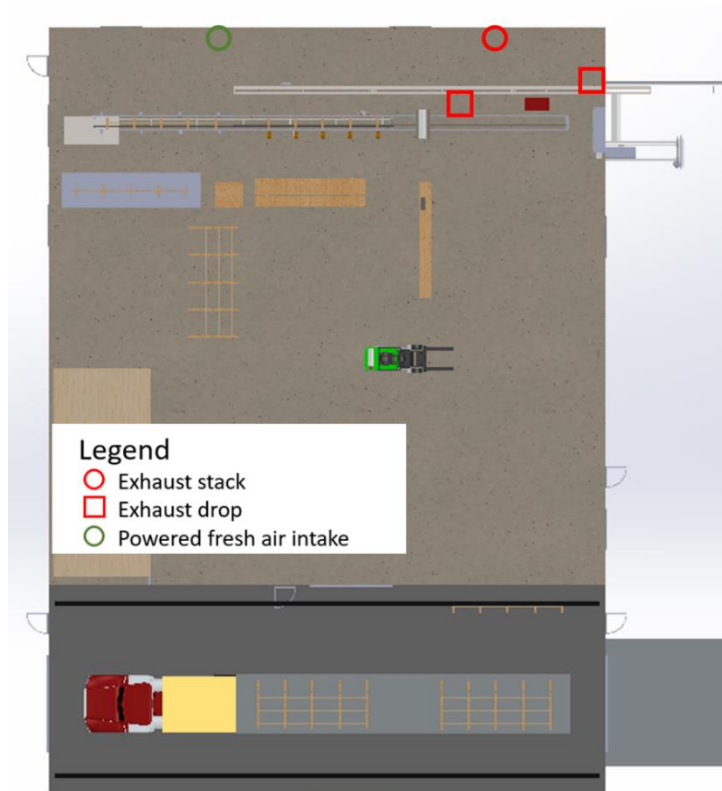


Figure 6. Exhaust stacks, drops and powered fresh air intakes in new facility



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Facility Odors Sources

In 2023 there was noticeable improvements in overall odor emissions from the Neuvokas facility. In January of 2023 a second carbon housing was installed on the higher source of odors and throughout 2023 procedures had been developed to determine intervals for both pre-filter changes and carbon media changes. Odor emissions are measured daily using a RKI GX6000 VOC meter. The RKI meter is capable of simultaneously monitoring up to six gases and is equipped with a library of over 600 VOC gases to choose from as a standard. The polyolefin resin used by Neuvokas is one of these gases that it can measure and the RKI meter is set to that specific VOC scaling.

There are sample ports located on each exhaust stack where the measurements are taken. Stack 1 on Gen1 and Gen2 production lines have a single sample port located at the base of the exhaust stack downstream of where all separate exhaust drops come together into the main duct. On Stack 2 for Gen1 and Gen2 there are two sample ports where measurements are taken. The first is located on the main duct before the air is sent through the carbon adsorption filters and the second is located on the main duct after the air has passed through the carbon. These measurements are referred to as pre and post measurements respectively. When taking a measurement, the probe of the meter is fully inserted into the sampling port and samples for two minutes to allow for the readings to stabilize, once the reading on the meter has stabilized that measurement is recorded in PPM using form C-07-001. From July of 2022 to August 2023 there has been almost 70% reduction in odor emissions. There are areas within the facility that can generate odors and these areas will be discussed below. Table 1 has a sampling of this data with PPM levels of odors shown in the table.

		Gen 2 Stack 1		Gen 2 Stack 2			Gen 1 Stack 1		Gen 1 Stack 2			total (PPM)	Weather Conditions			Complaint Times
		Hz	PPM	Hz	pre	post	Hz	PPM	Hz	pre	post		Wind	Pressure	Humidity	
Prefilters Changed	8/1/2023	60.00	2.40	45.00	36.00	19.50	38.45	3.50	60.00	60.00	9.00	34.40	5 mph ESE	28.99 Hg"	73%	2:02 PM
	8/2/2023	60.00	0.90	45.00	35.50	16.00	38.45	2.30	60.00	41.00	4.10	23.30	14 mph W	28.81 Hg"	69%	
	8/3/2023	60.00	7.30	45.00	55.40	24.50	38.45	2.80	60.00	60.20	11.40	46.00	10 mph NNW	28.77 Hg"	52%	8:04 PM
	8/7/2023	60.00	5.70	45.00	40.20	28.40	38.45	1.10	60.00	63.20	13.00	48.20	8 mph W	28.72 Hg"	56%	
Prefilters, Backline carbon changed	8/8/2023	60.00	1.50	45.00	38.30	11.30	38.45	1.60	60.00	60.40	10.60	25.00	9 mph WNW	28.71 Hg"	40%	
	8/9/2023	60.00	0.20	45.00	57.00	14.60	38.45	0.90	60.00	63.70	22.30	38.00	15 mph W	28.58 Hg"	55%	
	8/10/2023	60.00	0.40	45.00	77.00	31.30	38.45	4.10	60.00	49.00	13.00	48.80	12 mph NW	28.62 Hg"	63%	
	8/14/2023	60.00	1.40	45.00	59.70	31.10	38.45	0.50	60.00	40.00	5.90	38.90	7 mph ENE	28.90 Hg"	51%	
Prefilters Changed	8/15/2023	60.00	1.50	45.00	50.00	25.00	38.45	3.10	60.00	70.30	26.60	56.20	10 mph W	28.83 Hg"	41%	
	8/16/2023	60.00	0.60	45.00	28.30	16.00	38.45	3.20	60.00	45.20	13.60	33.40	12 mph SSW	28.55 Hg"	51%	
	8/17/2023	60.00	0.50	45.00	42.00	25.00	38.45	7.70	60.00	68.00	18.00	51.20	26 mph WNW	28.46 Hg"	65%	9:38 PM
Reported Odor	8/18/2023												9 mph W	28.8 Hg"	46%	12:35 PM
	8/21/2023	60.00	1.40	45.00	40.00	20.00	38.45	0.70	60.00	43.00	16.00	38.10	CALM	29.16 Hg"	75%	4:00 PM
Prefilters Changed	8/22/2023	60.00	1.10	45.00	30.00	15.00	38.45	1.40	60.00	40.00	9.50	27.00	9 mph ESE	29.02 Hg"	78%	4:00 PM
	8/23/2023	60.00	0.60	45.00	35.00	19.50	38.45	9.20	60.00	39.50	9.00	38.30	6 mph E	28.77 Hg"	97%	4:00 PM
	8/24/2023	60.00	1.80	50.00	33.00	18.00	38.45	0.50	60.00	30.50	10.00	30.30	7 mph N	28.7 Hg"	90%	Morning
	8/28/2023	60.00	2.20	50.00	46.00	19.40	38.45	1.80	60.00	91.90	13.40	36.80	14 mph W	28.8 Hg"	57%	
Prefilters Changed	8/29/2023	60.00	2.10	50.00	83.00	31.00	38.45	2.80	60.00	112.80	20.30	56.20	16 mph N	28.8 Hg"	70%	4:30 PM
	8/30/2023	60.00	2.00	45.00	70.70	28.10	38.45	4.00	60.00	67.50	12.90	47.00	13 mph W	28.95 Hg"	63%	7:30 AM
	8/31/2023	60.00	1.30	45.00	59.20	29.60	38.45	3.30	60.00	74.50	10.60	44.80	1 mph SW	28.95 Hg"	55%	

Table 1. Sample of data available from Neuvokas odor emission measurements.



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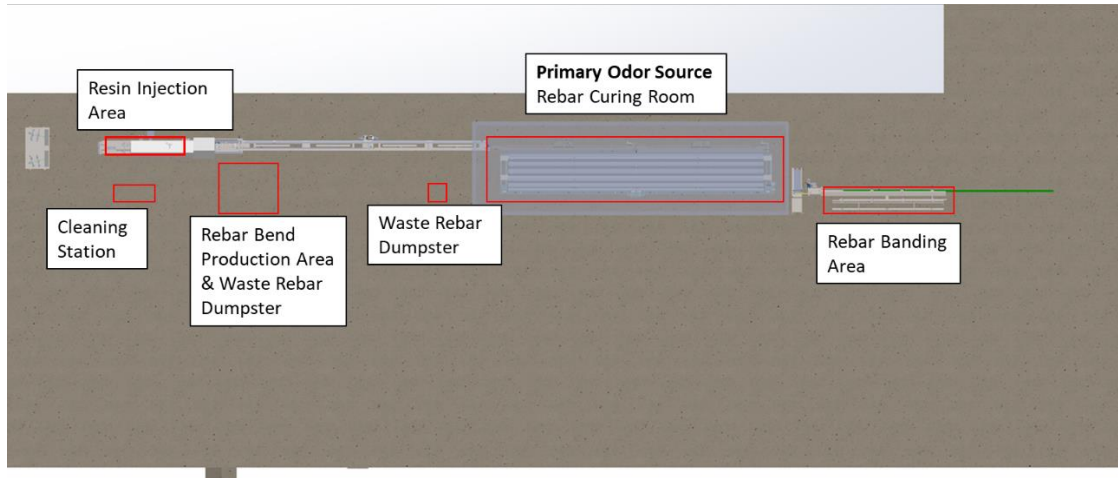


Figure 7. Gen1 Production Line Odor Source Summary

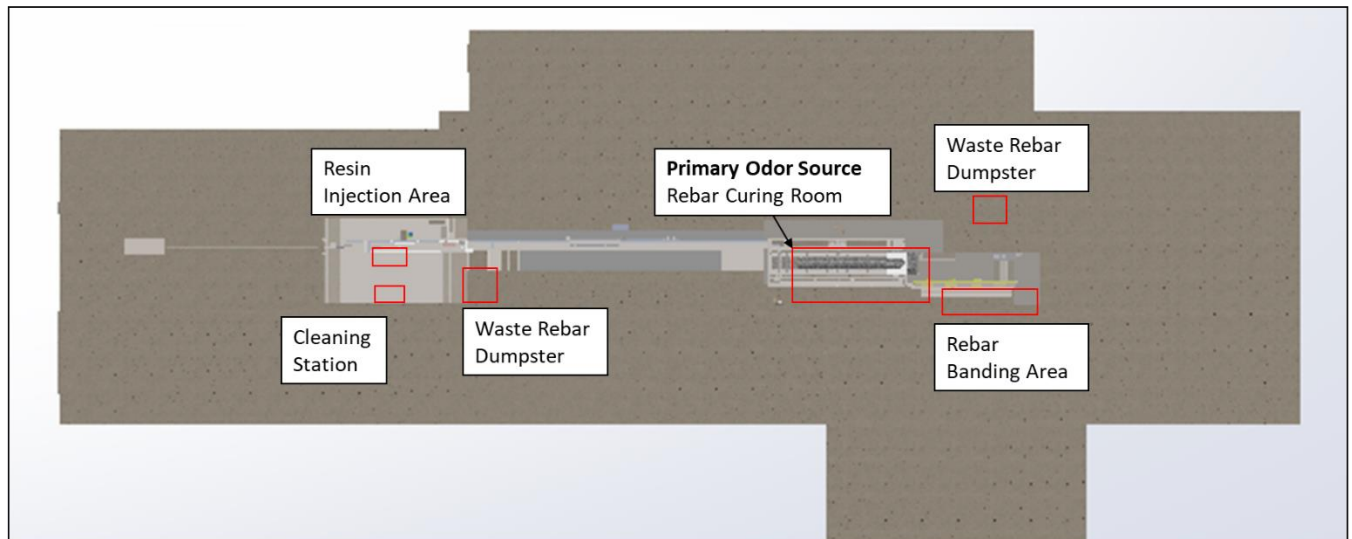


Figure 8. Gen2 Production Line Odor Source Summary



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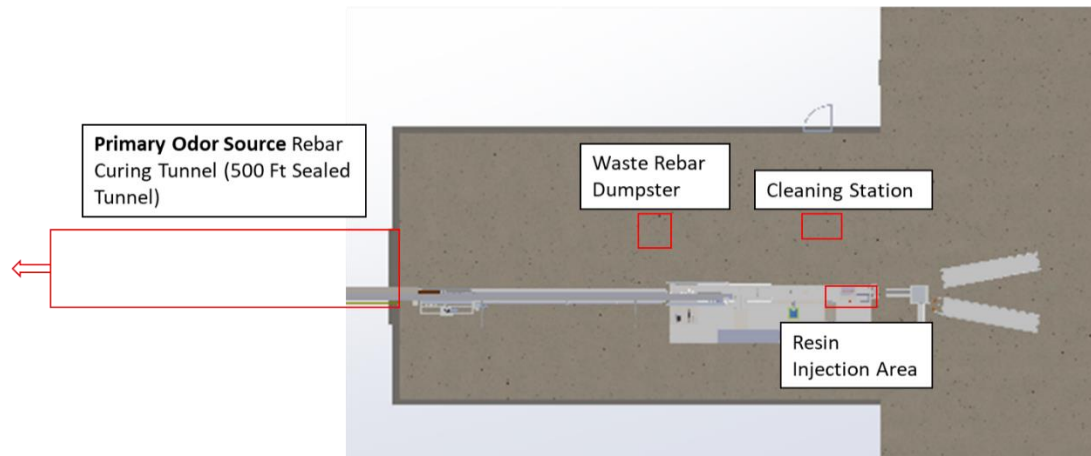


Figure 9. Gen3 Production Line Odor Source Summary

Odor Mitigation Plan

Overall Design of Facility

As discussed previously each manufacturing line has a front-end and back-end to the manufacturing process. The distinction between these areas is important to understand, and this nomenclature will be used throughout the remainder of this odor mitigation plan. Front-end manufacturing describes the input end of the process and is where fiber and resin are introduced to each other. The back-end of the manufacturing process describes conveyance and the finished handling areas of rebar. Odors are generated in both areas with the front-end process odors being created by fugitive resin (resin leaks, drips, and other scrap material) and back-end process odors being created by resin curing.

Back-end process items are currently mitigated using carbon molecular filtration and odor neutralization while front-end process is currently mitigated with process cleanliness, carbon molecular filtration, and odor neutralization.

As described in previous section the Neuvokas facility has multiple exhaust stacks with exhaust fans throughout the facility. These fans can be either turned on or off and can be set with varying fan speeds. Neuvokas intends exhaust fans to be on every day, regardless of production. The chart below shows setpoints for all fans throughout the Neuvokas facility.



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Fan Set Speeds		Production Online	Production Offline
Exhaust Air	Gen1 Curing Room	60 Hz	20 Hz
	Gen1 Front	25 Hz	25 Hz
	Gen2 Curing Room	25 Hz	10 Hz
	Gen2 Front	60 Hz	60 Hz
	Gen3 New Building and Tunnel	35 Hz	10 Hz
Recirculators	Gen3 Front End	40 Hz	10 Hz
	Shop	30 Hz	10 Hz
	New Building	30 Hz	10 Hz
	Main Shop	ON	OFF
Intake Air	Gen1 Front	15 Hz	OFF
	Gen1 Banding	ON Blast Gate 50%	OFF
	Gen2 Front	ON Blast Gate 50%	OFF
	Gen2 Banding	35 Hz	OFF
	Gen3	20 Hz	OFF

Table 2. Fan settings of online vs. offline production

Current Mitigation Processes

Carbon Filtration – Stacks

The largest source of odors currently generated come from rebar curing rooms. Carbon filters are currently installed on the Gen1 and Gen2 curing rooms, see Figure 10 below. Even with complaints currently being received Neuvokas intends to continue using these carbon filters. Smaller carbon filters were first installed on 3/7/2022 and larger carbon systems were installed on 6/6/2022. Hydrosil International Ltd. (an industry leader in gas phase filtration) was consulted to size carbon systems for Neuvokas air flow rates.

Hydrosil recommended 250 ft/min air speed within the carbon system and based on the system operating at a maximum airflow of 4,000 cfm the carbon filtration system was sized to meet this 250 ft/min value. The size of carbon housing and the amount of carbon surface area is designed to optimize carbon adsorption. This also means that if Neuvokas exhaust fans operate lower than the maximum values the air speed is only reduced and carbon dwell time is improved. Maximum exhaust fan settings can be utilized and meet Hydrosil recommendations.

These carbon housings have MERV 8 pleated air filters before the carbon elements to remove particulate from the airstream to increase the efficiency and lifespan of the carbon media. Gen3 has carbon filters installed in two locations, one upstream and one downstream.

The carbon media is monitored daily during production and is changed when the efficiency of the media is less than 50% and changing prefilters did not improve carbon efficiency. Efficiency is based on pre and post carbon PPM measurements. If total odors from the Neuvokas facility also exceed 100 PPM carbon filters will be changed in addition to the intervals discussed previously. This has led to an average replacement interval of 2-3 weeks on Gen3 production line, 3-4 weeks on the Gen2 production line, and 6-8 weeks on the Gen1 production line while the pleated air filters are changed weekly throughout the facility. As both prefilters and carbon filters are changed the actual date and time is recorded in the



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Neuvokas tracking system. It should be noted that this is a more frequent change than manufacturer of this carbons system would typically recommend, but they default to operating conditions within the specific scenario.

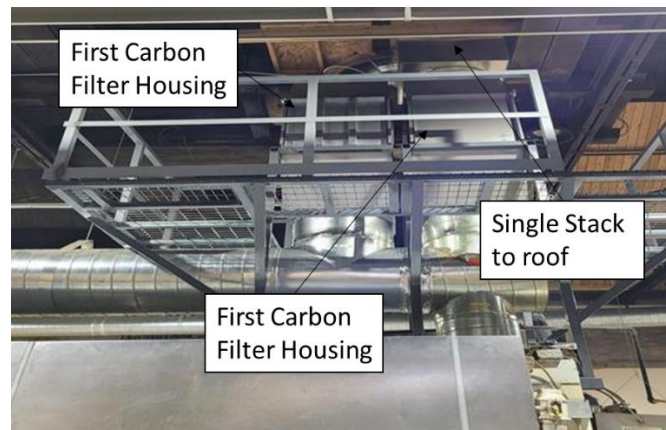


Figure 10. Gen 2 carbon filtration system

Odor Adsorption and Neutralization

OMI Industries was consulted and recommended an odor treatment solution called Ecosorb 806. This material is marketed as an all-natural product that is designed to neutralize the specific odors found in Neuvokas exhaust stacks. OMI Industries based this material selection on actual gas chromatography of samples taken from exhaust stacks.

An additional solution that has been trialed as a neutralizing solution is chlorine dioxide (ClO₂). When applied in concentrations of less than 1 ppm to the exhaust air this material has an oxidizing effect on remaining odor molecules. Based on facility tests this has a similar effectiveness as Ecosorb.

Due to the sanitizing characteristics of the chlorine dioxide, which helps reduce build-up in the atomizing sprayers, this is the primary solution being used to treat the exhaust stacks. In the event of supply interruption of the chlorine dioxide the Ecosorb will be used as a treatment solution in the exhaust stacks. The Ecosorb solution will be used primarily on the air recirculators located inside the facility.

Current Utilization

An odor neutralizing solution has been implemented into the Neuvokas facility using the carbon filter recirculation towers and after the molecular carbon filtration housings on the exhaust stacks. Either Ecosorb 806 or chlorine dioxide materials have been atomized into the exit stream of these recirculation towers with the goal of distributing the material into the air within the facility to capture fugitive odors. As previously reported to EGLE these recirculation towers have resulted in 70% reduction in odors measured within the facility.

Two recirculation towers are currently being utilized and currently these are placed near the Gen2 and Gen3 production lines. The Neutralizing solution is being distributed into this system at the rate of ten gallons per 10-hour shift. Each of these recirculation towers use a 6-gallon pail of Ecosorb solution that



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is diluted at 50:1 with water (six gallons of water and 450 mL of Ecosorb 806 concentrate). The application rate of these recirculation towers does not change as production changes.



Figure 11. Carbon Filter and Ecosorb distribution recirculation towers

Between 6/5/2023 and 6/15/2023 a facility wide odor study was completed. The Ecosorb 806 material was injected into all stacks with promising results. To continue injection into all stacks Neuvokas has installed an application system that applies the neutralizing solution into all exhaust locations in conjunction with the treatment that is already being done within the facility. Components to complete this project cost \$7,300 and this cost does not include the full automation and automatic monitoring of solution streams. A weekly inspection and maintenance of the neutralizing solution system and carbon molecular filtration has been utilized. This weekly inspection will include nozzle cleaning and evaluation for potential clogs.

Full facility implementation into all exhaust streams has been completed using a filtered and sealed central pumping skid that has a continuous running capacity of 110 hours. This system uses two 275-gallon IBC totes with the first tote being used for batch mixing and the second tote being used as the primary pumping tank, see Figure 12. Each tote uses 275 gallons of water and 5.5 gallons of Ecosorb 806 or 11 tablets of Safrax ClO₂ to create a consistent 50:1 mix ratio or 1 ppm concentrate solution. The two totes are connected to each other so that there is no interruption in the supply of odor neutralizing solution. Individual pumps supply treatment for each of production lines exhaust stacks, this includes Gen1, Gen2, and upstream end of Gen3, at a rate of one gallon per hour for each location. This rate was determined during the two-week trial previously completed. An air atomizing sprayer applies odor neutralizing solution after the carbon filtration at each exhaust location. This solution is applied for two



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hours after any production line stops and then treatment will be shut down, no spray will be applied when production is not in operation. This system was fully implemented 10/20/2023.

Planned Utilization

In addition to the existing treatment system on all the exhaust stacks, an application system will be installed in conjunction with the Gen 3 exhaust stack. This additional application system will be installed in new Gen3 production line building by 7/1/2024.



Figure 12. Ecosorb batching and pumping totes plus system.

Front End Odor Mitigation

The front end of has multiple sources of odors that will still be present moving forward. Typically, the numbers from these stacks are less than 10 PPM for both front-end stacks combined.

Continuous Improvement Projects

Currently a project has been implemented to keep front end waste clean. As discussed, the polyolefin resin can be detected by the human nose at the PPB level. Operator training is being completed to ensure any “wet” resin is properly disposed of in sealed drums. These drums are collected and disposed as solid waste at a local transfer station. All employees were trained on updated waste handling practices as of 11/1/2023. It should be noted that these drums are an odor source when open. Operator training is designed to minimize open time on these drums and drums will be located at a specific area to mitigate their odor release and it will be completed for existing and all future employees.



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Fugitive Odor Collection

Gen1 and Gen2 production lines will have modifications designed to match Gen3 current design. These parts which included new waste dumpster fume hoods and dedicated carbon filtration systems, were installed on 4/11/2024.

Waste and Waste Removal

Waste from the Neuvokas process will have odors, the largest source was the paper that was removed from the rebar. Implementation of the film coating on rebar has primarily eliminated this source of odors. The other sources of waste are typically generated at production run startup and shutdown. This waste is placed in dumpsters that use curtains and powered exhaust to control odors. Waste that is wet with resin (higher number of odors) should be placed in sealed barrels, as discussed above. All waste will be removed to the transfer station in a timely manner.

A standard operating procedure has been prepared for new employees and training of existing employees has been completed. Improvement projects will reduce waste and promote the reduction the fugitive odors. Odor measurements around the NVKS facility will provide feedback and areas for further odor elimination.

Odor Mitigation Conclusion and Timeline

Odors come from multiple sources within the Neuvokas facility as discussed with EGLE since 2020 and there have been many projects over the last three years to mitigate these odors. This odor mitigation document and plan is summary of this progress and the items that are currently in process. The main projects that have been recently implemented are odor neutralizing solution treating all exhaust stacks and the film coating. These items both address the largest source of odors within the Neuvokas manufacturing process.

Odor Source Mitigation Items

As discussed in the previous section the main sources of odors within the facility are the rebar curing room, waste rebar dumpsters, cleaning stations, rebar banding area, and the primary odor source, rebar curing room.

Rebar banding area

This area has fugitive odors that are from the final 5% of curing that might be occurring. Exhaust from this area will continue to be collected and currently have carbon filters installed. Odor neutralizing solution is now treating the exhaust air in these stacks and was installed 10/20/2023.

Film coated rebar which was implemented on all lines by 2/17/2024 has greatly reduce odors from this area by containing the surface of the bar during this final amount of curing.



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Resin injection area and Cleaning Station

This area does have fugitive odors that are released during the resin injection of fiber and any waste that is produced. Currently exhaust from this area is fed into ventilation stacks. These stacks have much lower odor measurements than rebar curing rooms. Molecular carbon filtration and odor neutralizing solution has been installed in this area on 4/16/2024 and 10/20/2023 for Gen1 and Gen2 production lines, respectively. The Gen3 production line was built with these capture and control systems in place.

Waste Dumpsters

All waste dumpsters located at the front end of the Neuvokas process have hoods above with drapes that come down to the sides of the dumpster. Any "wet" resin materials will go into sealed waste bins, but these bins do get material that is releasing some odors. The hoods over these dumps are treated with carbon filters and feed into the main exhaust stacks. These stacks are now being treated with carbon filtration and odor neutralizing solution as of 4/16/2024 and 10/20/2023.

Rebar Curing Rooms

As discussed, the largest source of odors from the Neuvokas facility is the rebar curing rooms. Currently rebar sits in these rooms for an extended period of time and these odors are exhausted through carbon filters and then exit through the exhaust stacks. Odor neutralizing solution has been installed into these stacks to help mitigate any odors that are present. This was completed on 10/20/2023 as discussed.

As discussed, the film coating has had a large impact on these odors and reductions of odors by almost 100x have been documented with initial comparisons.

Short Term vs. Long Term Mitigation

Odor neutralizing solution is technically a short-term solution. Testing has shown its effectiveness and this solution has been fully implemented into the Neuvokas on 10/20/2023. This implementation date includes the estimated time that was needed after the system was operational to test and adjust the optimal application rates for best effectiveness.

Film coated rebar is the long-term solution to address the major odor sources. As previously stated, based on all current data this solution has captured a large majority of the odors during the manufacturing process which reduced the load on other mitigation controls thereby further reducing the chance of problematic odor emissions. Continuous improvement and various manufacturing process projects will be necessary to ensure odor control stays a priority and fugitive odors are minimized.



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Film Implementation Timeline

The Neuvokas manufacturing process has been using a paper coating to protect process equipment since rebar production started in 2013. This paper coating was designed to open during the curing of the rebar so that it could be removed from the process and disposed, it was truly a sacrificial coating. Removing this coating allowed odors to also release from the product until it was fully cured. This is the reason why curing room stacks have been the largest source of odors.

Since March of 2022 the development of a vapor barrier film has been a priority, as of 2/17/2024 all production lines in the facility have been producing product with this film coating. This coating achieved multiple goals with the first being elimination of odors released during this curing process. Implementing the coating also created multiple manufacturing efficiency opportunities that have massive potential benefits.

The development of this film coating has been a long process that has been difficult and frustrating for everyone involved. It has included multiple films types, multiple seam types, multiple seam bonding methods, varying film thicknesses, various embossing types and methods, and other items. This development has led to a polypropylene (PP) film, ultrasonically welded standing seam, and direct extrusion/emboss process. This process was developed from the ground-up and there are proprietary aspects to this process.

On 9/11/2023 a test was completed on the Gen1 line with film coated rebar. Typically, the curing room on the Gen1 line will have an odor level of 140-170 PPM in the curing room prior to carbon filtration. During this test this level was dropped to 2-4 PPM in the curing room prior to carbon filtration. These measurements are taken within the curing room and not in the ductwork as typically measured. Measuring the PPM concentration within the curing room gives the best look at the effectiveness of the film coated rebar. This reduction was instantly noticeable within this curing room and is expected to eliminate >95% of odors generated during the curing process. This was a short-term test completed over approximately one hour of Gen1 line operation but it showed the potential that film coated rebar has to overall odors released from the manufacturing process. When considering the Neuvokas Gen3 line running at 250 fpm in testing a comparison can be made to the Gen2 manufacturing line also running at 250 fpm. Currently the 250 fpm will have 140-200 PPM prior to carbon filtration and there has been recorded levels below two PPM on the Gen3 manufacturing line. This Gen2 vs. Gen3 comparison is data over the course of the last three months of testing and included almost 200 sets of run data.

Figure 13 illustrates the recorded emissions from the Neuvokas facility since June of 2022. As odor mitigation projects have been implemented there have been quantifiable drops in overall emissions. In the time period indicated by the red line was the first major reduction in facility emissions, this time frame corresponds to the installation and optimization of initial molecular carbon filtration systems on the curing room stacks. The next reduction in facility emissions shown by the orange line was a result of additional carbon filtration within the facility and an overhaul of all intake and exhaust systems in the



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facility. Another reduction was observed when implementation of the odor neutralizing solution across the main facility was completed. The final reduction that has been observed has been with the implementation of the film coating on all production lines.

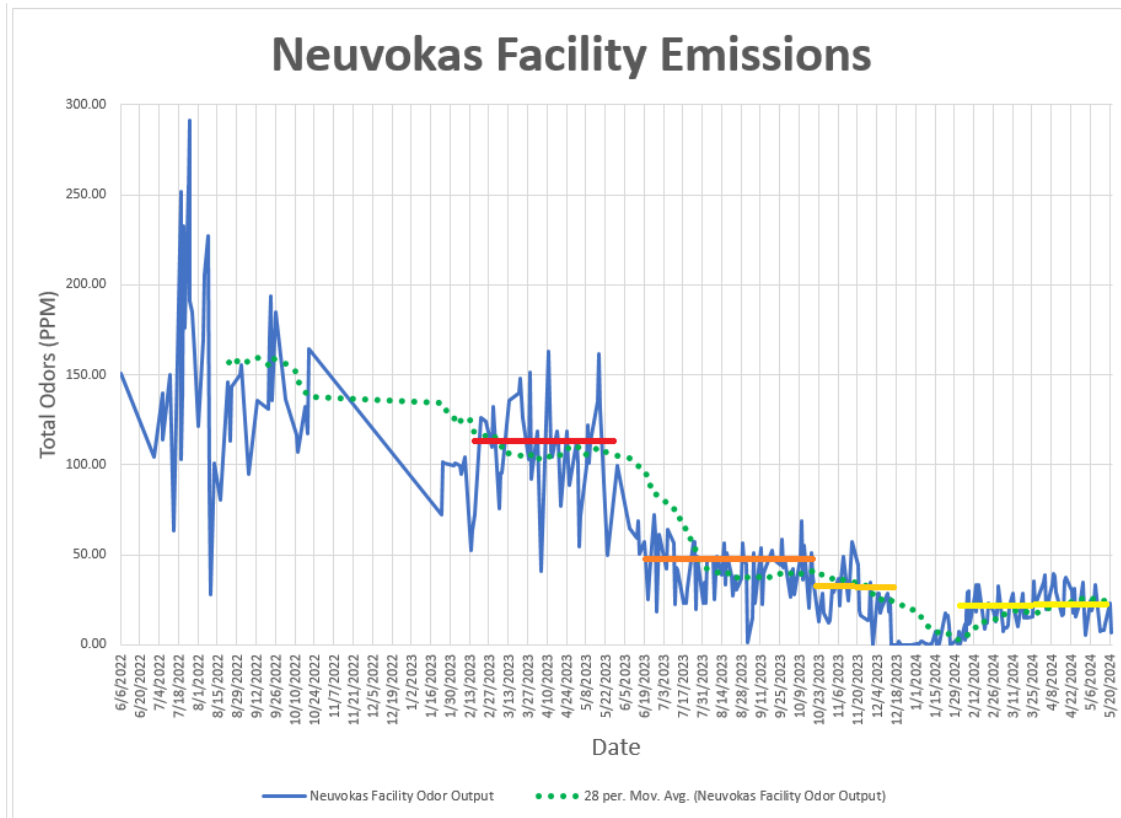


Figure 13. Chart of odor emissions from June 2022 to present with average trendlines

As discussed previously the current film solution has been fully implemented and Neuvokas has only produced film coated rebar since February of this year. Moving forward the Neuvokas facility will only manufacture film coated rebar products.

Neuvokas Responsibility and Odor Monitoring

Various projects and plans have been discussed in this document. These specific projects have personnel assigned to see them through completion. Engineers are assigned to specific projects and Technicians are used to support these projects.

Data collection is completed on a daily basis and this data is reviewed weekly. Data is collected via a RKI measurement device that is calibrated on a 90-day interval by Neuvokas personnel. The RKI meter is calibrated per manufacturer instructions and uses a standard calibrated isobutylene gas. When numbers outside the normal are measured, this information is used to make decisions on effectiveness and potential issues.



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Ultimate oversight for these projects falls to the Director of Engineering, Matt Kero.

Local Community Outreach

The Neuvokas facility is closely located to multiple residences. To help identify when local odors are a problem Neuvokas has created an online complaint form. This form will be a basic summary that anyone can use to record odors with general comments. The goal of this compliant form is to receive immediate odor information that can be used to adjust or implement further monitoring within the Neuvokas facility. This form was made available online in December of 2023. Receiving timely reports on odors detected beyond the facility is extremely valuable.

Procedures for Elevated Odor Event

Facility technicians will record measured odors at time of event, a member of the Engineering team will inspect all odor control processes to determine if there is a malfunction of any equipment. This procedure is documented in a Neuvokas operating procedure C-08-001. This document includes a checklist that includes the items listed below.

- Prefilters – Replace if dirty
- Carbon media – Check overall effectiveness, if less than 50% it will be changed
- Odor Absorption and Neutralization – Check for clogged atomizing tips or lack of Ecosorb solution
- Waste Material - Check for accumulation of waste in improper locations
- Intake and Exhaust Fan Operation - Check proper settings of all intake and exhaust fans

After these measures have been taken odor measurements will be retaken to ensure the corrective action taken was sufficient. Follow-up calls with EGLE or the complainee to report corrective actions taken and ensure problem will be addressed. All elevated odor events will be logged with the by Neuvokas personnel and these corrective actions, comments, or otherwise will be recorded in this log.



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Summary Timeline

A timeline for recently completed and planned improvement projects can be seen below.

- Operator procedures for waste barrels vs. waste dumpsters – Completed by 11/1/2023
- Ecosorb pump station – Completed on 10/20/2023
 - Gen 3 Ecosorb Implementation- 6/14/2024
- Film coated rebar
 - Operate Gen3 line with film – Completed on 11/17/2023
 - Operate Gen2 line with film - Completed on 1/1/2024
 - Operate Gen1 line with film – Completed on 2/17/2024
- Other items
 - Online Complaint form – First draft of this system is completed and available online as of 12/10/2023.
 - Installation of Gen 3 Exhaust Stack – 7/1/2024
 - 3rd Party Odor Consultation – Will be completed following the timeline laid out in the consent order

Additional Odor Control Solutions and Conclusion

This odor mitigation plan is designed to reduce odors from the Neuvokas facility. Even reducing the odors by 98% there could still be complaints. Neuvokas is committed to continuing to reduce this facilities emission footprint and will continue to research and implement systems and operating procedures to further reduce emissions. In the event proposed odor control solutions are not effective the following control solutions will be considered. Some of these items have been discussed in the past and include Regenerative Thermal Oxidizers, Permanent Total Enclosure designed as described by EPA method 204, or Catalytic Oxidizers. These methods of odor mitigation will have significant cost and the current plan using film and air treatments provides short-term and long-term solutions.



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Appendix

Control Document C-07-001 – This document is used to record daily measurements within and outside the Neuvokas facility. These values are entered into a spreadsheet was shown earlier in this document.

Daily Odor Measurements									
Date:			Gen 1 Line		Gen 2 Line		Gen 3 Line		
Start Time:	End Time:	Stack 1 Fan Speed	Hz	Stack 1 Fan Speed	Hz	Stack 1 Fan Speed	Hz		
Shop Readings		Unfiltered	ppm	Unfiltered	ppm	1st Carbon	ppm		
Front of Shop		Stack 2 Fan Speed	Hz	Stack 2 Fan Speed	Hz	Stack 2 Fan Speed	Hz		
Head of Line	ppm	Pre:	ppm	Pre:	ppm	Pre:	ppm		
Middle of Line	ppm	Post:	ppm	Post:	ppm	Post:	ppm		
Banding	ppm	Additional Observations:		Additional Observations:		Additional Observations:			
Back of Shop									
Head of Line	ppm								
Middle of Line	ppm								
Banding	ppm								
Front Office	ppm								
Middle of Shop	ppm								
Outdoors Road Side	ppm								
Outdoors Back Pad	ppm								
Outdoors North Side	ppm								

Daily Odor Measurements									
Date:			Gen 1 Line		Gen 2 Line		Gen 3 Line		
Start Time:	End Time:	Stack 1 Fan Speed	Hz	Stack 1 Fan Speed	Hz	Stack 1 Fan Speed	Hz		
Shop Readings		Unfiltered	ppm	Unfiltered	ppm	1st Carbon	ppm		
Front of Shop		Stack 2 Fan Speed	Hz	Stack 2 Fan Speed	Hz	Stack 2 Fan Speed	Hz		
Head of Line	ppm	Pre:	ppm	Pre:	ppm	Pre:	ppm		
Middle of Line	ppm	Post:	ppm	Post:	ppm	Post:	ppm		
Banding	ppm	Additional Observations:		Additional Observations:		Additional Observations:			
Back of Shop									
Head of Line	ppm								
Middle of Line	ppm								
Banding	ppm								
Front Office	ppm								
Middle of Shop	ppm								
Outdoors Road Side	ppm								
Outdoors Back Pad	ppm								
Outdoors North Side	ppm								



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Control Document C-08-001 – This document will be used to record data from any elevated odor event. These events could be from Neuvokas hotline or from EGLE feedback.

Elevated Odor Event Checklist																																																																																										
Date		Corrective Action Time/Date Started		Wind Conditions																																																																																						
Time		Corrective Action Time/Date Complete																																																																																								
<p><i>After review of all shop conditions odor measurements should be repeated</i></p> <table border="1"> <thead> <tr> <th colspan="4"></th> <th colspan="3">Post Event Review</th> </tr> <tr> <th>Measured Odors</th> <th>PPM</th> <th>Fan On/Off</th> <th>Fan Speed</th> <th>PPM</th> <th>Fan On/off</th> <th>Fan Speed</th> </tr> </thead> <tbody> <tr> <td colspan="7">Gen 1 Stack 1</td> </tr> <tr> <td>Gen 1</td> <td>Pre Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stack 2</td> <td>Post Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="7">Gen 2 Stack 1</td> </tr> <tr> <td>Gen 2</td> <td>Pre Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stack 2</td> <td>Post Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gen 3</td> <td>Pre Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Exhaust 1</td> <td>Post Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gen 3</td> <td>Pre Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Exhaust 2</td> <td>Post Carbon</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>											Post Event Review			Measured Odors	PPM	Fan On/Off	Fan Speed	PPM	Fan On/off	Fan Speed	Gen 1 Stack 1							Gen 1	Pre Carbon						Stack 2	Post Carbon						Gen 2 Stack 1							Gen 2	Pre Carbon						Stack 2	Post Carbon						Gen 3	Pre Carbon						Exhaust 1	Post Carbon						Gen 3	Pre Carbon						Exhaust 2	Post Carbon					
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Daily Odor Measurement SOP-

Daily VOC Measurement SOP

Date Created: 2023-11-10

Date Modified:

Modified By:

Purpose	This SOP is to ensure the correct steps are taken to gather accurate VOC measurements from all relevant rebar production lines. These daily measurements are to be used to track the facilities odor emissions to ensure odor compliance
Scope	Where will this SOP be used? This SOP is to be used when gathering VOC data at GatorBar's Manufacturing facility.
	Who will use this SOP? Engineers and Engineering Assistants
	Are there any specific limitations or exceptions to this SOP? This SOP only applies to recording VOC emissions using the RKI GX6000 VOC Meter
Procedure	Step 1 Turn on GX 6000 VOC meter and check how many days of calibration are left. (If VOC meter needs calibration follow "RKI GX 6000 Calibration and Cleaning SOP". This will need to happen every 90 days.)
	Step 2 Get a new "NKVS Daily Odor Measurement Sheet C-07-001
	Step 3 Record Date and start time of measurements on the measurement sheet
	Step 4 Ensure the production line is in operation when measurements are taken. Measurements are to be taken at each of the locations listed on the Daily Odor Measurement Sheet
	Step 5 With the meter on, insert measurement wand fully into the sampling port (see image below) into the locations sample port on the ventilation duct 



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	<p>Step 6 Leave the measurement wand in the sampling port for 2 minutes to allow readings to stabilize</p>
	<p>Step 7 Once readings have stabilized, write the highest value seen on the meter after the 2 minutes have passed</p>
	<p>Step 8 Record the exhaust fan Hz for that location on the Measurement Sheet</p>
	<p>Step 9 Continue taking measurements at all exhaust stack locations listed</p>
	<p>Step 10 After all exhaust stack measurements have been recorded, take ambient shop measurements at all locations listed on the measurement sheet</p>
	<p>Step 11 To take ambient shop reading, stand at the listed location for 2 minutes and record the highest reading seen on the meter after the 2 minutes have passed. (Pay attention to possible sources of odors that could skew the reading such as open Acetone Containers or uncured rebar. If there are any sources found, inform the manufacturing engineer to be corrected.)</p>
	<p>Step 12 After all measurements are taken return meter to charging cradle and the completed measurement sheet to the manufacturing engineer to be entered into database</p>
Resources	RKI GX 6000 Calibration and Cleaning SOP
	NVKS Daily Odor Measurement Sheet C-07-001



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Waste Handling and Removal SOP-

Waste Handling and Removal SOP

Date Created: 2023-11-10


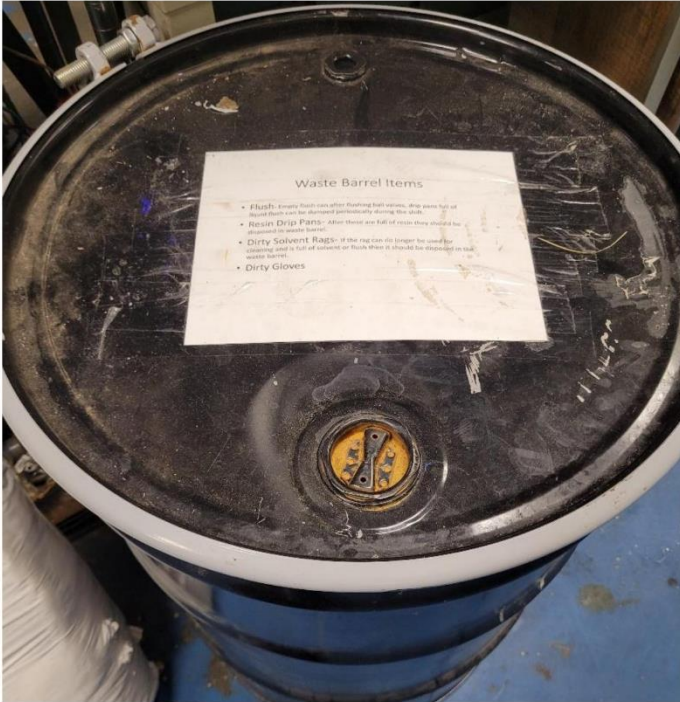
Date Modified:

Modified By:

Purpose	This SOP is to ensure consistent handling and managing of waste generated during the rebar manufacturing process.
Scope	Where will this SOP be used? On every GatorBar production line.
	Who will use the SOP? All existing production line Operators and Employees undergo quarterly refresher training. New employees will be trained upon hiring on proper waste handling.
	Are there any specific limitations or exceptions to this SOP? No
Operating Procedure	Step 1 Dry fiber and film scraped during start-up will be placed in the blue waste dumpsters located at the front end of the line.
	Step 2 Any uncured bar that is scraped during start up or operation of the line is to be placed in a dumpster that is has exhaust venting and heat lamp. Both heat lamp and exhaust venting must be on during operation.
	Step 3 Cured rebar that is not of acceptable quality must be placed in 2nd's location to be sold as architectural rebar. If kinked or broken at any point along the bar that bar must be cut into lengths no greater than 48" and placed in a waste dumpster.
	Step 4 Drip pans are to be used to collect resin/flush run-off on the front-end of the production line. Once these pans are full they are to be disposed of in the waste barrel located on the front end of the production line.



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	<p>Step 5 Sacrificial film (I.E. Paper) that is removed from the bar after the rebar is cured is to be placed in the compactor baler periodically during operation and after every shut down.</p>
<p>Cleaning Procedure</p>	<p>Step 1 During cleaning of the production line any uncured/partially cured chunks of resin are to be placed in the waste barrel. After placing waste in the barrel the lid must be promptly closed to contain odors.</p>  <p>Step 2 Rags that are used during clean up are to be disposed of in the waste barrel. Solvent rags that are used to wipe down surfaces and clean parts can be reused until they are</p>



AMERICA'S REBAR

	too dirty then must be disposed of in the waste barrel. No rags should go in the waste dumpster or the standard garbage cans.
	<p>Step 3 Gloves that are used to handle uncured resin or flush are to be disposed of in the waste barrel.</p> <p>Step 4 Flush that is used to clean out injection lines is to be disposed of in the waste barrel.</p>
Waste Barrel Procedure	<p>Step 1 When the waste barrel is full the lid is to be secured using the clamping ring.</p> <p>Step 2 The sealed waste barrel is to be disposed of at the transfer station during the next trip and not to be stored for extended length of time.</p> <p>Step 3 A new waste barrel is placed on the front end of the line.</p>
	<p>Step 1 When a dumpster is full a forklift trained staff will empty the dumpster into the waste trailer. (In the event the dumpster has uncured resin or flush in the dumpster it should be left under the heat lamp until the resin is cured then emptied into the waste trailer.)</p> <p>Step 2 The waste trailer should be emptied at the transfer station every day that production is occurring to ensure waste and odors is not accumulating inside the facility.</p>
	<p>Step 1 When the compactor baler is full reference "Paper Bale Removal SOP" to properly prepare and remove a compacted bale from the baler.</p> <p>Step 2 Prepared bales are to be placed in the waste trailer and removed from the facility during the next trip.</p>
Resources	Paper Bale Removal SOP



AMERICA'S REBAR

Community Out-reach Odor Survey-



Odor Survey

Desire/Need

To ensure we are good neighbors

Goal

To receive timely data that will enable us to find source location much more quickly and more fully develop remediation measures

Survey Location

You can provide timely input here



<https://forms.gle/kEr86G6vwNfP1xnk7>

Thank you!



May 24, 2024

Courtney Bisbee
Manufacturing Engineer
Neuvokas Corporation
3206 #6 Rd - PO Box 220
Ahmeek, MI 49901

Re: *Engagement of Byers Scientific*

Dear Mr. Bisbee:

The purpose of this engagement letter ("Letter") is to set forth the mutual understandings between us with respect to Neuvokas Corporation's ("Neuvokas") engagement of our company, KGM Enterprises Inc. d/b/a Byers Scientific ("Byers"), to serve as an outside consultant with respect to odor-related challenges faced by Neuvokas at its Ahmeek, Michigan GatorBar® rebar manufacturing facility (the "Facility").

The following numbered paragraphs reflect our understanding and agreement on the material terms and conditions of Neuvokas' engagement of Byers.

1. Services and Deliverables.

The services contemplated hereunder (the "Services") shall include:

- Travel to (and from) the Facility for an in-person site visit by Byers' Vice President Josh Rembusch.
- During the site visit, Mr. Rembusch shall tour the Facility with a focus on those areas identified as suspected odor sources.
- During the site visit, Mr. Rembusch shall utilize two (2) GilAir air sampling pumps to collect a total of fifteen (15) air samples, via desorption tubes. Air samples shall be taken at mutually-agreed upon locations as follows: five (5) samples are allotted for strategic locations throughout the Facility as agreed upon by Neuvokas and Byers; five (5) samples shall be taken inside duct work venting the production area/room, before engineering controls and prior to exhaust stacks (the "Stacks"); and five (5) samples shall be taken inside the duct work, after engineering controls and prior to exhaust point of the relevant Stack. The proposed sampling protocol removes the need to sample at the exhaust point of the Stack.
 - All samples shall be analyzed via GC/MS by a third-party laboratory. Analysis results shall be reported in PPB.
 - Additionally, if available, Byers shall provide Odor Detection Thresholds (ODTs) for any compounds that are detected.

Exhibit B



- At the direction of the lab while sampling for VOCs (TO-17) and to include DCPD, the pump will be set at a rate of 200 cc/min for no less than one hour and no more than 2 hrs; ~18 liters.
- Byers Chief Scientific Officer Dr. William Vizuite shall utilize the DCPD analysis as well as flow rate(s) and duct size(s) to calculate an emission rate for each of the processes. Other considerations include hours of operation and consistency in the process (as an indicator of how consistent the emissions are or are not). Each process will be assigned a rate, and those rates will be combined to get a gas-phase emission rate representative of Stack emissions. Dr. Vizuite will also provide an Excel-based tool with the ability to use the third-party analysis in conjunction with AERMOD results to calculate concentrations of various compounds at different distances based on concentration levels at the source (Stack). This evaluation will leverage pre and post engineering controls analysis to document the efficacy of the control.
- Two (2) of the air samples shall be analyzed for full EPA TO-17 VOC scans and the remaining thirteen (13) air samples shall be analyzed for Dicyclopentadiene (DCPD). The third-party laboratory has indicated that it has detection capability of ~1 ppb.
- During the site visit, Mr. Rembusch shall conduct an indoor air quality (IAQ) assessment of the Facility utilizing a nanoparticle counter capable of real-time readings of particle counts (0.3 – 10 microns) as well as size distribution of particles.
- As part of the Services, Byers shall perform an Air Balance Assessment based on documented readings taken via an anemometer¹ during various production scenarios during the site visit. Specifically, measurements shall be taken with all Stacks operational as the standard SOP and then again with only two (2) Stacks operational to account for potential events when lines are down. The report shall include at least eight (8) official readings (with time-stamped photos) and could also include as many as eight (8) additional unofficial readings. Please note that the site visit/sampling event shall require a dedicated Neuvokas employee to be in communication with Mr. Rembusch via radio at other set locations so both parties can take simultaneous readings. Radios must be provided by Neuvokas.
- During the site visit, Mr. Rembusch shall collect a sample of carbon from the Facility's existing carbon-related odor control systems and facilitate a certified third-party ASTM carbon analysis for remaining life and moisture balance. Mr. Rembusch shall also document the observed face velocity for the existing carbon-related odor control systems.
- Byers shall facilitate one (1) AERMOD air dispersion analysis for the Facility (focused on the Stacks) based on the results of the above-described air samples analysis. AERMOD is the EPA's preferred dispersion model and utilizes local MET data, terrain data from the USGS and atmospheric chemistry calculations to project the concentration of a designated compound at an identified potential downwind receptor. Please note that Neuvokas shall be responsible for providing onsite MET data as a supplement to the regional public MET data utilized for AERMOD analysis. Relevant findings shall be included in the written report.
- The pricing in this Letter includes third-party lab analysis, tubes, pump rental and associated freight for sample shipments.

¹ Byers shall assume that anemometer readings are acceptable to demonstrate negative pressure at various potential means of egress (e.g., man doors and overhead doors).

The deliverables contemplated hereunder (the "Deliverables") shall include:

- Byers shall provide Neuvokas with a written report outlining the observations from the site visit along with documented readings and relevant results from the IAQ assessment, air samples analysis, AERMOD analysis, and carbon analysis. The report shall include relevant recommendations relating to odor control strategies and equipment for the Facility.

2. Fees.

The fixed/flat fee for the Services and Deliverables shall be **\$26,118.00**, plus any applicable tax.

In addition to the fixed/flat fee, Byers shall be entitled to reimbursement for reasonable, pre-approved expenses beyond those covered by the above fixed/flat fee.

Upon acceptance of this Letter, Byers shall issue an invoice for sixty-five percent (65%) of the fixed flat fee (\$16,976.70), plus tax (if applicable). An invoice for the remaining thirty-five percent (35%) of the fixed/flat fee (\$9,141.30), plus tax (if applicable), shall be invoiced by Byers after the site visit and must be paid prior to issuance of the Deliverables.

3. Additional Terms.

In addition to the terms set forth above, and in consideration of the significant expenses both parties will incur in pursuing this engagement and the mutual undertakings described, the parties state the following:

- (a) Neither party or their representatives or agents shall disclose to any third party any confidential or proprietary information about the engagement and transactions contemplated by this Letter, except as required by applicable law. The parties agree to enter into a mutual non-disclosure and confidentiality agreement prior to the site visit.
- (b) Each party hereto represents and warrants that such party is not a party to any contract, agreement or understanding with any other party which would prevent such party from entering into this Letter.
- (c) In the event of any legal action instituted by Byers in connection with this Letter, if successful, Byers shall be entitled to recover all of its costs and expenses incurred including court costs and reasonable attorney's fees.
- (d) Neuvokas understands and acknowledges that Byers will perform the Services in a manner that is independent, impartial and objective. Byers does not warrant the outcome of the Services, and Neuvokas understands and acknowledges that neither the amount nor the payment of any fees to Byers is contingent upon the results or findings of the Services.

- (e) With the exception of gross negligence or willful misconduct by Byers, Neuvokas agrees to indemnify, defend and hold harmless Byers, its owners, employees, contractors and agents, from any and all liabilities, losses, costs and expenses relating to any claims made or held by any third party related in any way to the Services and/or Deliverables provided by Byers hereunder.
- (f) Neuvokas understands and agrees that the total liability of Byers for any and all claims of any kind arising out of, relating to, or connected with the Services and/or Deliverables shall not exceed the amount of the total fees paid to Byers hereunder.
- (g) In the event Byers or any of its owners, employees, contractors or agents is required by subpoena or other legal process to provide testimony or produce documents relating to the Services or Deliverables or any other work product in connection with this engagement, and whether in court, deposition, arbitration or in any other legal proceeding, Neuvokas agrees to compensate Byers for any time incurred in connection with the preparation for and provision of any such testimony and/or document production at Byers' standard hourly rates in effect at that time. The foregoing shall not be applicable to the extent that such fees/expenses have been or are to be paid by another party.

Sincerely,

KGM Enterprises, Inc. d/b/a Byers Scientific

By: Josh Rembusch

Name: Josh Rembusch, Vice President

AGREED TO AND ACCEPTED:

Neuvokas Corporation

By: Matt Kero

Name: Matt Kero

Title: Director Eng

Date: 5/28/2024