

Application Review

Issue Date: Date needed

Region: Raleigh Regional Office
County: Wake County
NC Facility ID: 9200500
Inspector's Name: Jeff Harris
Date of Last Inspection: 04/06/2022
Compliance Code: 03 / Compliance - inspection

Facility Data	Permit Applicability (this application only)
<p>Applicant (Facility's Name): Nomaco Inc. - Zebulon</p> <p>Facility Address: Nomaco Inc. – Zebulon 501 Innovation Way Zebulon, NC 27597</p> <p>SIC: 3086 / Plastics Foam Products NAICS: 32615 / Urethane and Other Foam Product (except Polystyrene) Manufacturing</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p>SIP: 15A NCAC 02D .0515, 02D .0521, 02D .0530, and 02D .1806</p> <p>NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: Volatile Organic Compounds NC Toxics: N/A 112(r): Yes – isobutane storage Other: Plantwide Applicability limit (VOCs)</p>

Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	
Dennis Perry EHS and Facilities Manager (919) 380-6668 501 Innovative Way Zebulon, NC 27597 DPerry@nomaco.com	Dennis Perry EHS and Facilities Manager (919) 380-6668 501 Innovative Way Zebulon, NC 27597 DPerry@nomaco.com	Dennis Perry EHS and Facilities Manager (919) 380-6668 501 Innovative Way Zebulon, NC 27597 DPerry@nomaco.com	<p>Application Number: 9200500.22A Date Received: May 25, 2022 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 06734T20 Existing Permit Issue Date: 01/13/2021 Existing Permit Expiration Date: 12/31/22</p>

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2021	-	0.0300	241.02	-	2.97	-	-
2020	-	0.0300	208.43	-	2.16	-	-
2019	-	0.0300	179.21	-	2.06	-	-
2018	-	0.0300	202.04	-	3.97	-	-
2017	-	0.0300	193.99	-	1.30	-	-

<p>Review Engineer: Jacob Larson</p> <p>Review Engineer's Signature: _____ Date: _____</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue: 06734T21 Permit Issue Date: Date needed Permit Expiration Date: Date needed</p>
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1. Purpose of Application

Nomaco Inc. - Zebulon currently holds Title V Permit No. 06734T20 with an expiration date December 31, 2022 for a foam extrusion facility in Zebulon, Wake County, North Carolina. This permit application is for a permit renewal without modification. The renewal application was received on May 25, 2022, or at least six months prior to the expiration date. Therefore, the existing

permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

2. Facility Description

Nomaco, Inc. – Zebulon (Nomaco) owns and operates a foam manufacturing facility in Zebulon, North Carolina. Nomaco produces low-density, closed cell thermoplastic (polyethylene and polypropylene) foam using an extrusion process that employs isobutane as a blowing agent. Products include fun noodles, pipe insulation, kneeling mats, hair curlers, foam shipping packaging, wrap-around metal bar protection for playgrounds, pop can holders and concrete slab expansion joint packing material. The following operations are currently permitted in the foam manufacturing area of the facility: eleven polyethylene and/or polypropylene foam extrusion lines, three resin storage silos, three scrap foam grinders, one agglomerator, one hard purge grinder, one reclaim extruder, and various insignificant activities. The facility operates 3 shifts per day and 5 days per week.

3. History/Background/Application Chronology

History/Background

January 30, 2018	TV permit renewal issued. Air Permit No. 0673T18 was issued on January 30, 2018 with an expiration date of December 31, 2022.
June 24, 2019	Minor modification Air Permit No. 0673T19 was issued with an expiration date of December 31, 2022. Replace research extruder with new Foam Extrusion Line (ID No. ES-3245).
January 13, 2021	Minor Modification Air Permit No. 0673T20 was issued with an expiration date of December 31, 2022. Construction of three new foam extrusion lines.
October 07, 2021	Notice of Deficiency (NOD) was issued for failing to update emergency contact information in Risk Management Program (RMP). Response received October 15, 2021. No further action required.
July 01, 2022	Relocation of Extruder (ID No. ES-1072) from headquarters location to East Gannon location. Relocation did not have an effect on facility wide emissions and did not require Modification permit.

Application Chronology

May 25, 2022	DEQ received permit application 9200500.22A for Title V renewal.
June 06, 2022	Sent acknowledgment letter indicating that the application for permit renewal was complete.
March 28, 2023	Draft permit and review forwarded for comments to Permitting Supervisor.
March 29, 2023	Comments received from Booker Pullen, Permitting Supervisor.
XXXX xx, 2023	Draft permit and review forwarded to the Stationary Compliance Branch for comments. __ comments were received XXXX xx, 2023.

- XXXX xx, 2023 Draft permit and review forwarded to the ____ Regional Office for comments. ____ comments were received XXXX xx, 2023.
- XXXX xx, 2023 Draft permit forwarded to the applicant for comments. ____ comments were received XXXX xx, 2023.
- XXXX xx, 2023 Draft permit and permit review forwarded to public notice.
- XXXX xx, 2023 Public comment period ends. ____ comments received.
- XXXX xx, 2023 EPA comment period ends. ____ comments received.
- XXXX xx, 2023 Permit issued.

4. Permit Modifications/Changes and TVEE Discussion

The following table describes the modifications to the current permit as part of the renewal process.

Page No.	Section	Description of Changes
--	Cover page and throughout permit	<ul style="list-style-type: none"> • Updated all dates and permit revision numbers.
Pg 3 of the cover letter	Cover page	<ul style="list-style-type: none"> • Added “Notice Regarding The Right To Contest A Division Of Air Quality Permit Decision” page
Page 2 of Permit	Table of Contents	<ul style="list-style-type: none"> • Added Section 3.0 as “Insignificant Activities List” • Added Section 4.0 as “General Permit Conditions”
Page 2 of Permit	Table of Contents	<ul style="list-style-type: none"> • Corrected section 2.3 as “Actuals PAL Permit Requirements” in table of contents
Page 2 of Permit	Table of Contents	<ul style="list-style-type: none"> • Corrected section 2.4 as “Other Applicable Requirements” in table of contents
Page 3 of the Permit	List of Acronyms	<ul style="list-style-type: none"> • Added “List of Acronyms”
Page 4 of the Permit	Section 1 Table	<ul style="list-style-type: none"> • Removed the *** and footnote at the bottom of the table
Page 15 of Permit	Section 3	<ul style="list-style-type: none"> • Added Insignificant Activities as Section 3 of the Title V Permit
Page 15 of Permit	Section 3	<ul style="list-style-type: none"> • Removed additional information link in footnote because site no longer exist
Page 16-24 of Permit	Section 4	<ul style="list-style-type: none"> • Added General Conditions as Section 4 of the Title V Permit

This permit renewal is without modification, and no changes to the Title V Equipment Editor are needed.

5. Regulatory Review

- 15A NCAC 02D .0515: Particulates from Miscellaneous Industrial Processes

The three (3) scrap foam grinders (**ID Nos. ES-21, ES-22, and ES-23**), the agglomerator (**ID No. ES-24**), the three storage silos (**ID Nos. ES-16, ES-17, and ES-18**), the hard purge grinder (**ID No. ES-20**), and the reclaim extruder (**ID No. ES-26**) are subject to 15A NCAC 02D .0515.

This condition states that the facility must maintain production records such that the process rates “P” in tons/hour, as specified to the applicable formula stated in the permit, can be derived and made available to DAQ upon request. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
- ii. an annual (for each 12-month period following the initial inspection) internal inspection of the cloth filter, bin vent cartridge filters and cyclone’s structural integrity.

Based on the most recent inspection report, the maintenance logs showed that the inspections of the system ductwork and material collection unit are being performed. The logs also indicate the annual internal inspection of the cloth filters, the bin vent filters, and the cyclone’s structural integrity are being performed twice a year. Continued compliance is anticipated.

- 15A NCAC 02D .0521: Control of Visible Emissions

These sources (**ES-16 through ES-18, ES-20, ES-21 through ES-23, ES-24 and ES-26**) are each limited to 20% opacity when averaged over a six-minute period for those sources manufactured after July 1, 1971, and 40% opacity for those sources manufactured as of July 1, 1971, when averaged over a six-minute period. During the most recent inspection, no visible emissions were observed. The facility must observe the visual emission points of these sources once per month. The facility must also maintain a logbook of visible emission observations that must be submitted to DAQ in a semiannual summary report. A review of this log during the inspection showed that the facility is compliant with this requirement. Continued compliance is expected.

- 15A NCAC 02D .0530: Prevention of Significant Deterioration

The following emission sources are subject to 02D .0530: The Five (5) foam extrusion lines (**ID Nos. ES-1072, 1045, 1035, 1011 and 1000**), the one (1) foam extrusion line (**ID No. ES-4009**), and the Four (4) foam extrusion lines (**ID Nos. ES-1021, 1288, 1365, and 1411**).

The current permit for this facility contains requirements that the volatile organic compound (VOC) emissions do not exceed 0.6 pounds per cubic foot of foam produced each day and a tonnage limit of 763 tons of VOCs per consecutive twelve months for the six (6) foam extrusion lines as well as a tonnage limit of 275 tons of VOCs per consecutive twelve months for the one (1) foam extrusion line. Also, the four (4) foam extrusion lines have a tonnage limit of 1,252 tons of VOCs per consecutive twelve months.

In their semi-annual report for the second half of 2021, the facility reported VOC emissions for the twelve consecutive months ending December 31, 2018 of 105.6 tons for the five foam extrusion lines, 28.63 tons for the one (1) foam extrusion line, and 27.72 tons for the four (4) lines.

- 15A NCAC 02D .1806: Control and Prohibition of Odorous Emissions (State-Enforceable only)

This state-enforceable only regulation is applicable to the three foam extrusion lines and converting line (**ID Nos. ES-3249, ES-8030, and ES-8031**). This rule shall apply to all operations that may produce odorous emissions that can cause or contribute to objectionable odors beyond the facility’s boundaries as per 15A NCAC 02D 1806(c). Compliance is expected.

6. NSPS, NESHAPS/MACT/GACT, NSR/PSD, PAL, 112(r), CAM

NSPS

This facility is subject to New Source Performance Standards (NSPS), 40 CFR 60, Subpart IIII for the Diesel fuel-fired fire water pump (**ID No. IES-10**). No other emission sources at the facility are subject to New Source Performance Standards (NSPS). This source will continue to be listed on the Insignificant Activities List (Section 3 of the permit). This permit renewal does not change this status. Continued compliance is expected.

NESHAP/MACT/GACT

This facility is a minor facility with respect to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63. The propane-fired emergency generator (**ID No. IES-8**), the No. 2 fuel oil-fired emergency generator (**ID No. IES-9**), and the Diesel fuel-fired fire water pump (**ID No. IES-10**) are each subject to the “NESHAP for Stationary Reciprocating Internal Combustion Engines,” 40 CFR Part 63, GACT Subpart ZZZZ. No other emission sources at the facility are subject to 40 CFR Part 63. These sources will continue to be listed on the Insignificant Activities List (Section 3 of the Permit). This permit renewal does not affect the MACT/GACT status of the facility. Continued compliance is anticipated.

NSR/PSD

This facility is located in Wake County which is currently designated as attainment or unclassified for all PSD regulated pollutants. Wake County’s minor source baseline date for SO₂ has been triggered. This renewal application does not increase SO₂ emissions, therefore the increment is not affected.

The facility is a pre-existing major stationary source and is currently subject to three separate BACT limits for five polyethylene foam extrusion lines (**ID Nos. ES-1072, ES-1045, ES-1035, ES-1011, ES-1000**), one polyethylene foam extrusion line (**ID No. ES-4009**), and four polyethylene foam extrusion lines (**ID Nos. ES-1021, ES-1288, ES-1365, ES-1411**). The BACT limits are provided in the table below. No changes to these limits are required under this permit renewal, and continued compliance is expected.

Currently Permitted Emission Sources	BACT Limits	
Five polyethylene foam extrusion lines (ID Nos. ES-1072, ES-1045, ES-1035, ES-1011, and ES-1000)	<ul style="list-style-type: none"> • 763 tons of VOC per consecutive 12-month period. 	<ul style="list-style-type: none"> • 0.6 lbs of VOC per cubic foot of foam
One polyethylene foam extrusion lines (ID No. ES-4009)	<ul style="list-style-type: none"> • 275 tons of VOC per consecutive 12-month period. 	<ul style="list-style-type: none"> • 0.6 lbs of VOC per cubic foot of foam
Four polyethylene foam extrusion lines (ID Nos. 1021, 1288, 1365, and 1411)	<ul style="list-style-type: none"> • 1,252 tons of VOC per consecutive 12-month period. 	<ul style="list-style-type: none"> • 0.6 lbs of VOC per cubic foot of foam

Plantwide Applicability Limit (PAL)

A facility-wide Actuals PAL was added under Air Permit No. 06734T16 which was issued on May 17, 2016. The Actuals PAL for VOCs was established as 1,480 tons per consecutive 12-month period, therefore PSD permitting was not required.

In accordance with 40 CFR 51.166(w)(6), an actuals PAL level was established as the sum the baseline actual emissions (BAE) plus the PSD significant emission rate of 40 tons per year for VOC as specified in 40 CFR 51.166(b)(3). Using these procedures, the PAL level for Nomaco was calculated as shown in the table below. The PAL level was established as 1,480 tons of VOC per year.

Calculation of PAL	Emissions (tons per year)
Baseline Actual Emissions [Average emissions of 2011 - 2012 baseline period]	203
Add PTE four new polyethylene foam extrusion lines (ID Nos. ES-1021, ES-1288, ES-1365, and ES-1411) [constructed after 2011 – 2012 baseline period]	1,252
Remove BAE for polyethylene foam extrusion and converting line (ID No. 1029)	-14.9
Add significant emission rate for VOC	40
Actuals PAL for VOC	1,480

No change to this PAL limit is required under this permit renewal, and continued compliance is expected.

112(r)

Nomaco, Inc. - Zebulon is subject to the 112(r) “Prevention of Accidental Releases” requirements because it stores isobutane used as a foam blowing agent in amounts greater than the applicability thresholds. When these substances are brought onsite, the facility may need to revise and update its RMP as required by 40 CFR 68.190(b)(2) through (b)(7).

As required under 112(r), the facility submitted an updated Risk Management Plan (RMP) to EPA pursuant to 40 CFR 68.190 on March 27, 2017. The facility must revise and update its RMP every five years thereafter. During the inspection, the cover of the current RMP was provided on request and was dated March 2022. It was prepared by Trinity Consultants and is due to be reviewed and updated by March 2027. No changes are necessary under this permit renewal. Continued compliance is anticipated.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, the provisions of the Compliance Assurance Monitoring (CAM) rule are applicable to emission units that meet all the following criteria:

- Criteria #1: The unit is subject to an emission limitation AND uses a control device to achieve compliance with the limit;
- Criteria #2: The unit has pre-control potential emissions that are equal to or greater than 100% of the amount (in tpy) required for a source to be classified as a major source; and,
- Criteria #3: The unit is not exempt under 40 CFR 64.2(b).

The three new foam lines (**ID Nos. ES-3249, ES-8030, and ES-8031**) are all uncontrolled and thus, are NOT subject to CAM.

7. Facility Wide Air Toxics

Currently, the Permittee is not subject to NC Air Toxics. None of the proposed emission sources are anticipated to emit NC Toxic air pollutants, and a TAP evaluation is not required for this permit renewal.

8. Facility Emissions Review

Actual emissions for 2017 through 2021 are reported in the header of this permit review.

9. Compliance Status

DAQ has reviewed the compliance status of the Nomaco – Zebulon facility. During the most recent inspection, conducted on 04/06/2022 by Jeff Harris (RRO), the facility appeared to be in compliance with all applicable requirements. The facility was issued a NOD on 10/07/2021 for not updating RMP of new emergency contact information after previous employee left the company. Response to NOV received by DEQ 10/15/2021, no further action required. The facility's Annual Compliance Certification was received on February 20, 2023 and indicated compliance with all applicable requirements in 2022.

10. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. No affected states or local agencies are within 50 miles of this facility.

11. Other Regulatory Considerations

- A P.E. seal is NOT required for this renewal application.
- A zoning consistency determination is NOT required for this renewal application.
- A permit fee is NOT required for this renewal application.

12. Recommendations

The permit renewal application for Nomaco Incorporated located in Zebulon, Wake County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 06723T21.