

(DRAFT) FIRST TIME TITLE V AIR PERMIT APPLICATION REVIEW

APPLICANT: Nomaco, Inc.	SITE LOCATION: Tarboro	COUNTY: Edgecombe	
TECHNICAL CONTACT: Nia Christoforakis	PHONE: (919) 804-6329	AUTHORIZED CONTACT: Julian Young	TITLE: Director
REVIEW ENGINEER: Gautam Patnaik	SIGNATURE:	DATE: March 14, 2005	
REGIONAL CONTACT: Charles McEachern	REGIONAL OFFICE: Raleigh Regional Office	SIC CODE: 3086	
APPLICATION NUMBER: 3300167.03B	EXISTING PERMIT NUMBER: 08559R05	NEW PERMIT NUMBER: 08559T06	

1. Introduction

The U.S. Environmental Protection Agency (EPA) has given final approval to North Carolina's Title V operating permits program effective on October 1, 2001. Title V facilities are required to obtain an operating permit which addresses all applicable regulations under the State Implementation Plan, Federal Implementation Plan, and other provisions of the Clean Air Act (CAA). The Title V Operating Permit will define all of the facility's obligations under the CAA.

This first time Title V Air Permit application review intends to convey all pertinent emissions data, rules, policies, and engineering assumptions used to construct the DRAFT Title V operating permit. The primary source of information used to construct the DRAFT permit is the above referenced air permit application.

2. Background Information

The DRAFT Title V operating permit replaces an existing Air Quality Construction and Operation Permit No. 08559R05 which was issued on 4/23/2004 and is currently scheduled to expire on 1/31/2008.

Pursuant to 15A NCAC 2Q .0506 Nomaco Inc submitted its initial Title V application to the Division of Air Quality on 2/19/2003. The application was considered complete for

processing on XXX xx, 2003. The DRAFT permit was required to go to public notice pursuant to 15A NCAC 2Q .0521.

3. Facility Description

Nomaco, Inc. manufactures commercial and industrial foam pipe insulation and ‘Fun Noodles’ from a polyethylene extrusion process. Polyethylene pellets are extruded into foam using isobutane (a volatile organic compound) as the blowing agent. Although the facility has a BACT limit of 1393 tons per year of VOC emissions the applicant stated that their actual emissions is between 200 to 249 tons per year of isobutene (VOCs). The facility is a source of title V, since it’s actual emission of VOCs exceed 100 tons per year.

4. Summary of Emission Sources and Control Devices

The following table identifies all emission sources and associated control devices for which the Initial Title V Operating Permit is being issued:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Spray booths B I Sources: (ES-S02, ES-S03, ES-S04, ES-S05, ES-S06, ES-S07)	Six (6) spray booths (one atomized spray paint gun per booth)	NA	NA
Extruders B II Sources: (ES-P06, ES-P07, ES-P08)	Three (3) polyethylene extrusion process lines	NA	NA
Extruders B I Sources: (ES-P01, ES-P02, ES-P03, ES-P04, ES-P05)	Five (5) polyethylene foam extrusion lines	NA	NA
Spray booths B II Sources: (ES-S01, ES-	Two (2) spray painting operations	NA	NA

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5. Emission Source-by-Source Evaluation

A.

Spray booths BI:

Six spray booths (one atomized spray paint gun per booth) (ID Nos. ES-S02, ES-S03, ES-S04, ES-S05, ES-S06 and ES-S07)

Spray booths B II:

Two spray painting operations (ID Nos. ES-S01 and ES-S08)

Extruders BI:

Five polyethylene foam extrusion lines (ID Nos. ES-P01, ES-P02, ES-P03, ES-P04 and ES-P05)

Extruders BII

Three polyethylene extrusion process lines (ID Nos. ES-P06, ES-P07 and ES-P08)

1. Description:

All the extruders have totalizing flow meters installed on the isobutane lines.

2. Applicable Regulatory Requirements

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour Only for Spray booths (ID Nos. ES-S01, ES-S02, ES-S03, ES-S04, ES-S05, ES-S06 and ES-S07 and ES-S08)	15A NCAC 2D .0515

visible emissions	20 percent opacity	15A NCAC 2D .0521
volatile organic compounds	work practice standards	15A NCAC 2D .0958
volatile organic compounds	See Section 6. A.	15A NCAC 2Q .0317 & 15A NCAC 2D .0958

a. 2D .0515 ‘Particulates from Miscellaneous Industrial Processes’

i) Regulation Analysis

The allowable particulate emission limit is calculated by the following equation:

$$E = 4.10P^{0.67}$$

Where

E = allowable emission rate in pounds per hour

P = process weight in tons per hour, for P less than 30 tons per hour

The applicant stated that emissions of particulate matter takes place from spray booths and none from the extrusion processes, thus, only the spray booths (ID Nos. ES-S01, ES-S02, ES-S03, ES-S04, ES-S05, ES-S06 and ES-S07 and ES-S08) are subject to this regulation and the emissions of particulates from these sources are less than the allowable as mentioned in the table below. Thus, these sources will always be in compliance with this regulation. Particulate matter emission calculations are based on emission factors and seem to be appropriate.

Emission Source	process rate	allowable	Potential Emissions
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	(ton/hour)	emission rate (lb/hr)	(lb/hour)
ES-S01	0.685	3.18	0.27
ES- S08	0.685	3.18	0.27
ES- S02	0.155	1.18	0.13
ES- S03	0.155	1.18	0.13
ES- S04	0.155	1.18	0.13
ES- S05	0.155	1.18	0.13
ES- S06	0.155	1.18	0.13
ES- S07	0.155	1.18	0.13

ii) Monitoring/Recordkeeping Requirements

Production records must be maintained for these sources.

iii) Reporting Requirements

None.

b. 2D .0521 'Control of Visible Emissions'

i) Regulation Analysis

Since these sources were established after July 1, 1971, they are subject to 2D .0521(d). Per this regulation, visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period. The latest inspection report did not cite any opacity exceedances.

ii) Monitoring Requirements

Monthly visual observation of these sources shall be performed.

iii) Recordkeeping Requirements

A log will be kept of the monthly visible emission observations.

iv) Reporting Requirements

The applicant will submit a semi annual summary report of the observations by January 30 and July 30 of each year.

c. 2D .0958 'Work Practices For Sources of Volatile Organic Compounds'

i) Regulation Analysis

Sources subject to this regulation are required to follow work practices standards as outlined in the permit. Failure to do so will be in violation of this regulation.

ii) Monitoring

To assure compliance a visual inspection will be conducted once a month for all VOCs emitting operations during normal operating conditions.

iii) Recordkeeping

A log of the inspections shall be maintained and made available to DAQ when required.

vi) Reporting

The applicant shall submit a semi-annual summary report of the observations by January 30 and July 30 of each calendar year.

6. Multiple Emission Source Limits

A.

Spray booths BI:

Six spray booths (one atomized spray paint gun per booth) (ID Nos. ES-S02, ES-S03, ES-S04, ES-S05, ES-S06 and ES-S07)

Spray booths B II:

Two spray painting operations (ID Nos. ES-S01 and ES-S08)

Extruders BI:

Five polyethylene foam extrusion lines (ID Nos. ES-P01, ES-P02, ES-P03, ES-P04 and ES-P05)

Extruders BII

Three polyethylene extrusion process lines (ID Nos. ES-P06, ES-P07 and ES-P08)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
volatile organic compounds	emissions from Spray booths (ID Nos. ES-S01 through ES-S08) shall be less than 58 tons per year.	15A NCAC 2Q .0317
volatile organic compounds	emission from Extruders (ID Nos. ES-P01 through ES-P08) shall be less than 1393 tons per year and less than 0.6 pound per cubic foot of foam produced.	15A NCAC 2D .0530 (BACT)

1. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS

15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION (Avoidance)

i) Regulation Analysis

To avoid the applicability of 15A NCAC 2D .0530 "Prevention of Significant Deterioration," the above emission sources shall discharge into the atmosphere:

i. volatile organic compound (VOC) emissions from the spray booths booths (ID Nos. ES-P01 through ES-P08) shall be less than 58 tons per year.

ii) Monitoring/Recordkeeping

The applicant must calculate and record the monthly VOC emissions by the end of each month.

ii) Reporting.

The applicant shall submit a semi-annual summary report of monitoring and recordkeeping activities.

2. 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

i) Regulation Analysis

To comply with Best Available Control Technology (BACT), the emissions of volatile organic compound from the Extruders (ID Nos. ES-P01 through ES-P08) shall be less than 1393 tons per year and less than 0.6 pound per cubic foot of foam produced. Each of the eight extrusion lines (ID Nos. ES-P01, ES-P02, ES-P03, ES-P04, ES-P05, ES-P06, ES-P07 and ES-P08) shall have a totalizing flow meter installed on the isobutane lines.

ii) Monitoring/Recordkeeping

The applicant shall calculate monthly VOC emissions and the total amount of VOC emissions must be recorded in a monthly emissions log. The volatile organic compound usage for each batch shall be monitored and recorded using flow meter totalizers. The amount of foam produced, in cubic feet, shall be monitored and recorded.

iii) Reporting.

The applicant shall submit a semi-annual summary report of monitoring and recordkeeping activities.

7. Applications Chronology

The current application (App # 3300167.03B) was received on 2/19/2003, this original application was signed by Sneha Amin and was not considered complete since she is not the authorized person to sign the application. The A1 forms signed by the authorized person Mr. Mr. Julian Young was received on 10/18/04 and this is the date that this application was considered complete.

The applicant (App # 3300167.03C) was for an administrative amendment and resulted in the issuance of the Permit No. 08559R04

Application (App # 3300167.04A) was for PSD review which resulted in the current application being kept on hold to accelerate the issuance of Permit No. 08559R05 with BACT stipulations for the extruders and spray booths.

8. NSPS, NESHAPS, PSD, Attainment Status, 112(r), CAM

NSPS

The facility is currently not subject to any NSPS requirements.

NESHAP/MACT

The applicant indicated that like their facility located at Youngsville this facility does not have any flexible foam operations using a polyurethane process and therefore are not subject to “Flexible Polyurethane Foam Fabrication Operations (MACT),” i.e., National Emission Standards for Hazardous Air Pollutants Subpart M. M. M. M. M.

PSD

This facility is a major PSD facility for its emissions of VOCs. In order to avoid the applicability of 15A NCAC 2D .0530 Prevention of Significant Deterioration (avoidance) and comply with Best Available Control Technology (BACT) the emissions of VOCs from

- i) volatile organic compound (VOC) emissions from the spray booths (ID Nos. ES-S01 through ES-S08) shall be less than 58 tons per year (avoidance) and
- ii) emissions of volatile organic compound from the Extruders (ID Nos. ES-P01 through ES-P08) shall be less than 1393 tons per year and less than 0.6 pound per cubic foot of foam produced (BACT).

112(r)

This facility is subject to Section 112(r) of the Clean Air Act requirements because it does store some of the regulated substances in quantities above the thresholds in the Rule.

CAM

There are no control devices at this facility and therefore this facility is not subject to compliance assurance monitoring (CAM) regulations.

Facility Wide Air Toxics

The modification of this permit will not require an air toxics analysis.

9. General Conditions

The 'General Conditions' section of the Title V Operating Permits lists additional applicable rule requirements that the permittee must adhere to, as with any other permit condition. These requirements in general are common to all Title V facilities. The general conditions include provisions such as annual fee payment, permit renewal and expiration, transfer of ownership or operation, property rights, submission of documents, inspections and entry procedures, reopen for cause, and severability.

10. Insignificant Activities.

The insignificant activities listed in the application have been reviewed and verified. Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.

11. Compliance issue, Regional Office comments and Applicants comments.

The Regional Office inspected this facility on September 9, 2003 inspection, and stated “Nomaco appeared to be in compliance with all requirements outlined in their Title V permit with the exception of facility personnel not calculating VOC emissions correctly.” The same inspection report stated “Two NOV’s were issued to Nomaco’s Tarboro Plant in the last five (5) years. An NOV dated November 11, 2002 was issued to the facility for the failure to submit a Title V application. A previous Notice of Violation/Notice of Recommendation for Enforcement (NOV/NRE) dated December 6, 2000 was issued for failure to submit a completed Risk Management Plan on or before the June 21, 1999 deadline.”

The Regional Office and the applicant did have an opportunity to review and comment on the draft permit.

12. Public Notice

Pursuant to 15A NCAC 2Q .0521, a notice of the draft Title V Operating Permit will be placed in a newspaper of general circulation in the area where the facility is located. The notice will provided for a 30 day comment period, with an opportunity for a public hearing. Copies of the public notice will be sent to persons on the Title V mailing list, affected States and EPA.

13. Recommendations

The initial Title V application for Nomaco Inc - Tarboro has been reviewed by the DAQ to determine compliance with all procedures and requirements under 15A NCAC 2Q .0500 and 40

CFR Part 70. The DAQ has made a preliminary determination that the facility is complying or will achieve compliance as specified in the draft permit with all applicable requirements. Therefore, the DAQ is proposing to issue the Title V Operating Permit once the public comment period is complete.