

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

November 23, 2004

TO: Dawson F. Lasseter, P.E., Chief Engineer, Air Quality Division

THROUGH: John Howell, E.I., Existing Source Permits Section

THROUGH: Herb Neumann, P.E., Tulsa Regional Office

THROUGH: Peer Review

FROM: David Schutz, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application **No. 2004-226-C (PSD)**
Nomaco Incorporated
Oklahoma City Polyethylene Foam Extrusion Plant
Oklahoma City, Canadian County, Oklahoma
Section 35 – T 12N – R 5W
On Reno Avenue Between Sara Road and Morgan Road

SECTION I. INTRODUCTION

Nomaco Incorporated (Nomaco) has submitted a construction permit application for construction of a new polyethylene foam extrusion plant (SIC 3086). The proposed facility will be a new source under Prevention of Significant Deterioration (PSD) criteria.

The project is subject to PSD because the added potential emissions of VOC are greater than the PSD major source threshold. Full PSD review is required for VOC. Full PSD review of emissions consists of the following: a determination of best available control technology (BACT); an evaluation of existing air quality and determination of monitoring requirements; an evaluation of PSD increment consumption; an analysis of compliance with National Ambient Air Quality Standards (NAAQS); an evaluation of source-related impacts on growth, soils, vegetation, visibility; and a Class I area impact evaluation.

There will be a total of five extrusion lines installed. The first two will be installed initially upon construction, two more will be added in 2006, and the fifth line will be installed in 2007.

SECTION II. PROCESS DESCRIPTION

The process will consist of expanding heated polyethylene resin using isobutane as a foaming agent. Pelleted resin will be received pneumatically into four raw materials silos. Pellets will be transferred to completely enclosed individual blending stations for mixing with other additives. The mix of pellets/additives will be heated electrically to form a homogeneous melt. Isobutane will then be injected into the melt, which is then moved by screw to a die to form the final product. The boiling point of isobutane is 11°F, so it will change from liquid-phase to gas-phase in the process. Isobutane, as a liquid at 3,200 psi, will be injected into the melt, which is then moved by screw to a die to form the shape of the final product. The final products are then cooled using either air or water, printed with product specifications, then packaged and stored in a warehouse for shipment.

The plant is designed to have up to five forming machines, each with a capacity of 200-300 kg/hr resin. Initially, two machines will be installed with a total capacity of 500 kg/hr resin, with the others added “as market conditions warrant.”

The facility will include two resin grinders for reclamation of scrap resin, one for “hard purge” resin and one for foamed resin. Both will grind scrap resin for reflux to the process or use as packaging material.

The printing operation is expected to use a maximum of 230 gallons of ink per year containing up to a worst-case 10.0 lb/gal VOC, for a total of 1.15 TPY VOC from that operation.

In addition to the primary facility production units, the facility will include a 230-HP emergency generator, a 200-HP emergency fire pump, three gas-fired process heaters (2.8, 3.9, and 3.4 MMBTUH, respectively), and various pressurized isobutane storage tanks.

SECTION III. AIR EMISSIONS

Air emissions from the new facility have been calculated using the following methods and factors:

- Emissions of VOC from the foaming operation are based on a mass balance: a total of 800 TPY isobutane added to the process, assuming all isobutane is released to the atmosphere (a very conservative estimate since a portion will be retained in the products).
- Emissions of VOC from the printing operation have been based on mass balances: maximum annual ink usage of 230 gallons with 10 lb/gal VOC.
- Emissions from the emergency generator and fire pump have been estimated using factors from AP-42 (10/96), Section 3.3.
- Emissions from the process heaters have been estimated using factors from AP-42 (7/98), Section 1.4.
- Emissions of particulate matter from the raw materials silos and scrap grinders have been estimated based on expected air flows and manufacturer guarantees of PM concentrations (gr/SCF).

Based on measurements at other Nomaco facilities, the company estimates that 30% of added VOC is emitted at the foam production step with the balance from all subsequent operations (curing, cooling, packaging, etc.) or being retained in the product.

A. VOC Evaporation Processes

Process	Process Rates		VOC Content	VOC Emissions	
	Hourly	Annual		lb/hr	TPY
Foam Extrusion	183 lbs	800 tons	100%	183.00	800.00
Printing	1.00 lb	2,300 lbs	100%	1.00	1.15
TOTALS				184.00	801.15

The VOC from foam extrusion is isobutane, which is not a toxic or hazardous material. The VOC from printing is primarily ethanol, a Category B toxic but not a HAPs.

B. Emergency Engines

Unit	Pollutant	Factor (lb/hp-hr)	Emissions lb/hr	Emission TPY
Fire Pump (200-hp)	NO _x	0.031	6.20	1.55
	CO	0.00668	1.34	0.33
	SO ₂ *	0.00324	0.65	0.16
	VOC **	0.00251	0.50	0.13
	PM ₁₀	0.0022	0.44	0.11
Emergency Generator (290-hp)	NO _x	0.031	8.99	2.48
	CO	0.00668	1.94	0.48
	SO ₂ *	0.00324	0.94	0.23
	VOC **	0.00251	0.73	0.18
	PM ₁₀	0.0022	0.64	0.16

* based on 0.4% by weight sulfur in fuel.

**sum of exhaust plus crankcase VOC.

C. Process Heaters

Unit	Pollutant	Factor (lb/MMBTU)	Emissions lb/hr	Emission TPY
10.1 MMBTUH Total	NO _x	0.100	1.01	4.42
	CO	0.084	0.85	3.72
	SO ₂ *	0.0006	0.01	0.02
	VOC	0.0055	0.06	0.24
	PM ₁₀	0.0076	0.08	0.34

D. Silos and Scrap Grinders

Process	Process Rates	PM Emissions Factor, gr/SCF	PM Emissions	
			lb/hr	TPY
Receiving Silos	3,600 CFM	0.000136	0.01	0.02
Scrap Foam Grinder	6,000 CFM	0.000136	0.01	0.03
Hard Purge Grinder	1,500 CFM	0.000136	0.01	0.01
Agglomerator	17,500 CFM	0.000029	0.01	0.02
TOTALS			0.04	0.08

TOTAL FACILITY EMISSIONS

Emission Unit	Point ID	PM ₁₀		SO ₂		NO _x		VOC		CO	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Foam Extrusion	EP-01	--	--	--	--	--	--	184.00	801.15	--	--
Printing	--	--	--	--	--	--	--	1.00	1.15	--	--
Fire Pump	--	0.44	0.11	4.10	1.02	6.20	1.55	0.50	0.13	1.34	0.33
Emergency Generator	--	0.64	0.16	5.95	1.49	8.99	2.48	0.73	0.18	1.94	0.48
Process Heaters	EP-14A EP-14B EP-14C	0.08	0.34	0.01	0.02	1.01	4.42	0.06	0.24	0.85	3.72
Receiving Silos	EP-06 EP-07 EP-08 EP-09	0.01	0.02	--	--	--	--	--	--	--	--
Scrap Foam Grinder	EPN-02 EPN-03	0.01	0.03	--	--	--	--	--	--	--	--
Hard Purge Grinder	EP-04 EP-05	0.01	0.01	--	--	--	--	--	--	--	--
Agglomerator	EP-12 EP-13	0.01	0.02	--	--	--	--	--	--	--	--
TOTAL EMISSIONS		1.20	0.69	10.06	2.53	16.20	8.45	186.29	802.85	4.13	4.53
PSD Level of Significance			15		40		40		250		100
PSD Review Required?			No		No		No		Yes		No

Significant Discharge Points

Stack ID	Process	Height feet	Temperature °F	Flow ACFM
EP-01	Start-up vents	37	77	3,000
EP-02	Scrap foam grinder filter	18	77	3,000
EP-03	Scrap foam grinder filter	18	77	3,000
EP-04	Densified Filter #1	15	77	750
EP-05	Densified Filter #2	15	77	750
EP-06	Storage Silo #1	45	77	900
EP-07	Storage Silo #2	45	77	900
EP-08	Storage Silo #3	45	77	900
EP-09	Storage Silo #4	45	77	900
EP-12	ENG Dust Collector	18	77	8,000
EP-13	ENG Process Fan	15	77	9,500

NOTE: EP-10 and EP-11 will be the emergency engines.

SECTION IV. PSD ANALYSIS

A. BEST AVAILABLE CONTROL TECHNOLOGY

BACT was analyzed using the "top-down" approach. In those cases where a control strategy was deemed technologically infeasible or sufficient justification was provided for rejection by energy or environmental impacts, economic costs were not calculated. Control economics were evaluated using equipment lifespan, contingency costs, indirect costs, a discount interest rate, an interest rate on capital, utilities, and labor costs (including benefits, overhead, etc.).

There are three operations subject to BACT for VOC: foam extrusion, printing, and emergency engines. The majority of VOC emissions (99.6%) is anticipated from extrusion.

The process is very sensitive to pressure changes. Even a slight pressure swing would affect the size and shape of the end products while they are cooling. Any air pollution control which would have a significant impact on pressure during cooling would be infeasible because it would render the process incapable of functioning.

VOC emissions controls fall into two categories: process changes and discharge controls. The former category relies on reducing VOC content in raw materials and the most efficient usage of those raw materials. Outlet VOC control is accomplished by recovery or by combustion. Recovery methods include condensation and adsorption. Oxidation may be conducted in a unit designed only to provide combustion (incinerator, etc.), in process equipment (e.g., a boiler), or utilizing microorganisms to achieve the oxidation.

The application ranked the following emissions control technologies:

- Recuperative thermal oxidizer
- Regenerative thermal oxidizer
- Regenerative catalytic oxidizer
- flaring
- condensation
- carbon adsorption
- raw material substitution
- foaming (blowing) agent usage limits

Although biofiltration is potentially feasible, it is not a demonstrated technology for this type of process.

The BACT analysis is heavily dependent on predicted stack flows. High ventilation rates are often required by fire prevention codes and/or occupational safety regulations. The size of control equipment and the operating costs of that equipment are proportional to the air flow to be processed. An EPA reference was cited for the BACT analysis, “Survey of Control Technologies for Organic Vapor Gas Streams” (EPA-456, May, 1995).

RECENT BACT DETERMINATIONS FOR VOC FROM FOAM EXTRUSION

Source	Location	RBLC ID	Process	BACT
Dart Container of Kentucky	Kentucky	KY-0080	Foam extrusion lines	RTO
Fagardala Pac-Lite	Michigan	MI-0322	Polypropylene extrusion	TO
Nomaco	North Carolina	NC-0071	Polyethylene foam extrusion	restrict blowing agent usage

All other RBLC determinations were for bead production or polystyrene foam production. Since polystyrene is produced first by “puffing” beads into puffed beads, then fusing the beads, it is a different process which is not sensitive to pressure swings. The foam is not contained within a mold to preserve its shape during cooling, so pressure swings would change the size and shape of the products, resulting in off-spec products.

1. Foam Extrusion

The extrusion lines are predicted to have the highest VOC emissions. The highest expected VOC concentration is 4,500 ppm, or ¼ of the lower explosive limit (LEL) for isobutane.

Several of the above control technologies were rejected pre-emptively for technological reasons.

- Alternative raw materials are not practical. The only practical raw materials demonstrated to function are pentane, another VOC, or chlorofluorocarbons (CFCs), whose manufacture and usage are limited under 40 CFR Part 82.
- Condensation also is not practical given the high exhaust volume and low temperature needed to achieve any significant reduction. The boiling point of isobutane is 11°F, so the exhaust stream would have to be cooled well below this temperature to achieve any emissions reductions.
- Solid adsorption also depends on boiling point of the VOC to be controlled. This process is intended for other VOC species whose boiling points are higher such as benzene (176°F) or toluene (232°F).
- Flaring is used for waste gases with an appreciable heating value, at least 200 BTU/SCF and preferably 300 BTU/SCF. Since the isobutane is so dilute, the maximum heating value expected is 9 BTU/SCF or less; the balance would have to be made up from auxiliary fuel. This option may be rejected as impractical.

There are three remaining types of oxidizers: recuperative thermal oxidizers, regenerative thermal oxidizers, and regenerative catalytic oxidizers. A catalytic oxidizer will have higher initial costs but lower operating costs, while the costs are reversed for RTOs. Initial and operating costs and other costs were estimated in accordance with the EPA publication, "OAQPS Cost Control Manual" (5th edition, February 1996, EPA-453/B-96-001).

Control Technology	Initial Capital Cost	Annualized Capital Cost (7% Interest)	Annual Operating Costs	VOC Emissions Controlled TPY	Control Costs, \$/ton
RTO	\$1,009,567	\$143,740	\$4,246,736*	270.6	\$16,411
RCO	\$1,839,058	\$174,539	\$2,769,673	262.3	\$11,225

* most of the annual operating cost is for natural gas fuel.

It is concurred that add-on control costs would be excessive.

BACT for extrusion is a limitation of blowing agent usage of 0.6 lb VOC per cubic foot foam and an overall limit on the plant of 800 TPY blowing agent usage.

2. Printing

The printing operation is expected to emit only 0.15% of total VOC, therefore, its BACT analysis was abbreviated. Given the low emissions from this operation (1.15 TPY), costs of the various add-on controls were not analyzed. It is concurred that any control strategy would incur excessive costs for no environmental benefit.

VOC emissions from printing will be limited by limiting ink usage. Water-based inks are not demonstrated as usable for printing on the foam products.

3. Combustion Units (Engines/Heaters)

The combustion units are expected to emit only 0.05% of total VOC, therefore, the BACT analysis was abbreviated.

Combustion is a common control strategy for VOC emissions. All three units in this category are already combustion units. A review of the RBLC indicates that emergency engines have not been required to install additional VOC controls because of intermittent operation. DEQ agrees that engine design is acceptable as BACT.

BACT is acceptable as good combustion design for the two engines and boiler.

B. AIR QUALITY IMPACTS

For an area which is affected by emissions from a new major source, an analysis of the existing air quality is required for those pollutants which are emitted in significant quantities. The facility must demonstrate that the project does not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS), nor violate the increments of PSD. In addition, state-only standards affect ambient impacts of toxic air pollutants and sulfur dioxide.

VOC is not limited directly by NAAQS. Rather, it is regulated as an ozone precursor. EPA developed a method for predicting ozone concentrations based on VOC and NOx concentrations in an area. The ambient impacts analysis utilized these tables from "VOC/NOx Point Source Screening Tables" (Richard Scheffe, OAQPS, September, 1988). The Scheffe tables utilize increases in NOx and VOC emissions to predict increases in ozone concentrations. Total VOC emissions were utilized (803 TPY) along with NOx emissions of 8.45 TPY.

The following tables show maximum impacts from the project compared to the ambient levels of significance for ozone. As shown, ambient impacts are below NAAQS; there is no increment standard for ozone. Thus, it has been demonstrated that the plant does not cause nor contribute to an air quality standards violation.

NAAQS COMPLIANCE

Pollutant	Modeled Impacts, ug/m³	Background Concentration, ug/m³*	Total Impacts, ug/m³	NAAQS, ug/m³
Ozone	33	178	211	235

* from Yukon monitoring site for 2003, 3rd-highest reading.

COMPARISON OF INCREMENT TO AMBIENT MONITORING LEVELS OF SIGNIFICANCE

Pollutant	VOC Emissions, TPY	Monitoring Levels of Significance, TPY	Ambient Monitoring Required?
Ozone (VOC)	803	100	yes

AQD operates an ozone monitor 5 miles from the location in Yukon, Oklahoma. Data from that site are sufficient for pre- and post-construction ozone monitoring.

C. OTHER PSD ANALYSES

1. Growth Impacts

No significant industrial or commercial secondary growth will occur as a result of the project. New jobs will be created at the new facility and these will be filled by the local work force in the immediate area. No significant population growth will occur. Only a minimal air quality impact is expected as a result of associated secondary growth.

2. Soils, Vegetation, and Visibility

No effect on soils is anticipated from the facility. Literature searches did not locate any documented effects of ozone on soils. Since ozone is an oxidizer and soils already include significant concentrations of oxides (SiO₂, Fe₂O₃, etc.), no harmful effects on the soils themselves are anticipated.

Vegetation is sensitive to ozone concentrations, and elevated ozone concentrations can affect crops. Affects on vegetation are part of secondary air quality standards, standards set to protect public welfare and which are less stringent than primary standards which are set to protect public health. The expected concentrations of ozone downwind of the facility are below the primary air quality standards, indicating no significant effect would be expected.

There are two portions to a visibility analysis: impacts near the facility and impacts on Class I areas. There are no scenic vistas near the vicinity of the project. There will be minimal impairment of visibility resulting from the facility's emissions since the ozone-forming reactions take an appreciable time to occur. The nearest Class I area is the Wichita Mountains Wildlife Refuge, 114 km (71 miles) away to the southwest. Given the distance to the Class I area and angle to the prevailing winds, it is highly unlikely that the source would cause any adverse visibility impairment in the nearest Class I area. Operation of the facility is not expected to produce any perceptible visibility impacts in the vicinity of the plant. Given the reasonable expectation that normal operation will result in 0% opacity, no local visibility impairment is anticipated.

3. Impact On Class I Areas

The nearest Class I area is the Wichita Mountains Wildlife Refuge, about 114 km (71 miles) from the facility at nearly a 70° angle to the prevailing winds. The two important tests for effect on a Class I area are visibility impairment and ambient air quality effect. A visibility analysis in the previous section indicated no impairment of visibility for this area. The extended transport distance to the nearest Class I area precludes any significant air quality impact from the facility.

SECTION V. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-4 (New Source Performance Standards) [Not Applicable]
Federal regulations in 40 CFR Part 60 are incorporated by reference as they exist on July 1, 2002, except for the following: Subpart A (Sections 60.4, 60.9, 60.10, and 60.16), Subpart B, Subpart C, Subpart Ca, Subpart Cb, Subpart Cc, Subpart Cd, Subpart Ce, Subpart AAA, and Appendix G. NSPS regulations are addressed in the “Federal Regulations” section.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Required annual information (Turn-Around Document) shall be provided to Air Quality.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule
- 0.6 TPY of any one Category A toxic substance
- 1.2 TPY of any one Category B toxic substance
- 6.0 TPY of any one Category C toxic substance

Emission limits for the facility are based on information in the permit application.

OAC 252:100-9 (Excess Emission Reporting Requirements) [Applicable]

In the event of any release which results in excess emissions, the owner or operator of such facility shall notify the Air Quality Division as soon as the owner or operator of the facility has knowledge of such emissions, but no later than 4:30 p.m. the next working day. Within ten (10) working days after the immediate notice is given, the owner operator shall submit a written report describing the extent of the excess emissions and response actions taken by the facility. Part 70/Title V sources must report any exceedance that poses an imminent and substantial danger to public health, safety, or the environment as soon as is practicable. Under no circumstances shall notification be more than 24 hours after the exceedance.

OAC 252:100-13 (Prohibition of Open Burning) [Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter) [Applicable]

Section 19-4 regulates emissions of PM from new and existing fuel-burning equipment, with emission limits based on maximum design heat input rating. Appendix C specifies a PM emission limitation of 0.60 lb/MMBTU for all equipment at this facility with a heat input rating of 10 Million BTU per hour (MMBTUH) or less. All new fuel-burning equipment will have a rated heat input below 10 MMBTUH.

Point	Description	Heat Input (MMBTUH)	Expected PM Emissions (lb/MMBTU)	Allowable PM Emissions (lb/MMBTU)
EP-10	Emergency Generator	2.3	0.278	0.6
EP-11	Emergency Fire Pump	1.6	0.278	0.6
EP-14A	Process Heater	2.8	0.0076	0.6
EP-14B	Process Heater	3.9	0.0076	0.6
EP-14C	Process Heater	3.4	0.0076	0.6

This subchapter also limits emissions of industrial processes based upon their process weight rates. The emission rate in pounds per hour (E) is not to exceed the rate calculated using the process weight rate in tons per hour (P), for process rates up to 60,000 lb/hr using the formula in Appendix G ($E = 4.10 * P^{(0.67)}$) and for process rates over 60,000 lb/hr ($E = 55 * P^{0.11} - 40$). The following table lists the process weight rates and the allowable emissions for each process.

Unit	Process Weight Rate (TPH)	Expected PM Emissions (lb/hr)	Allowable PM Emissions (lb/hr)
Receiving silos	120	0.01	53.13
Scrap foam grinder	0.28	0.01	1.75
Hard purge grinder	0.28	0.01	1.75

The facility maintains process and/or particulate control devices such that the PM emissions are well within the allowable for the process weight of materials.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. Since isobutane is colorless, there is little possibility of violating this rule.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Solids handling operations are conducted in enclosed operations, with most discharges vented to baghouses or bin vent filters. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require additional precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 5 The new equipment standard for emissions of oxides of sulfur measured as sulfur dioxide from gas-fired fuel-burning equipment is 0.2 pounds per MMBTU heat input, maximum three-hour average. AP-42, Table 1.4-2 (3/98), lists natural gas SO₂ emissions to be 0.6 lb/MMft³ or about 0.0006 lb/MMBTU, which is in compliance. The new equipment standard for emissions of oxides of sulfur measured as sulfur dioxide from oil-fired fuel-burning equipment is 0.8 pounds per MMBTU heat input, maximum three-hour average. AP-42 (10/96), Table 3.3-1, lists diesel fuel SO₂ emissions to be about 0.29 lb/MMBTU, which is in compliance.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits NO_x emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 affects new (constructed after December 28, 1974) storage tanks with a capacity between 400 and 40,000 gallons holding an organic liquid with a true vapor pressure greater than 1.5 psia (77.57 mmHg). When the vapor pressure is above 11 psia, the container shall be a pressure vessel capable of maintaining working pressures. The new tanks are designed as pressure vessels in compliance with Part 3.
Part 5 limits the VOC content of paints and coatings. Organic materials used as foaming additives are not regulated by Subchapter 37.
Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The equipment at this location is subject to this requirement.
Part 7 also affects effluent-water separators which receive more than 200 gallons per day of VOC which have a vapor pressure of 1.5 psia or greater. There are no effluent water separators planned for this facility.

OAC 252:100-39 (VOC Emissions in Former Non-attainment Areas) [Not Applicable]
The new facility will be located in Canadian County, outside the areas affected by this rule.

OAC 252:100-41 (Hazardous Air Pollutants and Toxic Air Contaminants) [Applicable]
Part 3 addresses hazardous air contaminants. NESHAP, as found in 40 CFR Part 61, are adopted by reference as they exist on July 1, 2003, with the exception of Subparts B, H, I, K, Q, R, T, W and Appendices D and E, all of which address radionuclides. In addition, General Provisions as found in 40 CFR Part 63, Subpart A, and the Maximum Achievable Control Technology (MACT) standards as found in 40 CFR Part 63, Subparts F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, GGGG, HHHH, JJJJ, NNNN, OOOO, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, BBBB, CCCC, FFFFF, JJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, and SSSSS are hereby adopted by reference as they exist on July 1, 2003. These standards apply to both existing and new sources of HAPs. These requirements are covered in the “Federal Regulations” section.

Part 5 is a **state-only** requirement governing toxic air contaminants. New sources (constructed after March 9, 1987) emitting any category “A” pollutant above de minimis levels must perform a BACT analysis, and if necessary, install BACT. All sources are required to demonstrate that emissions of any toxic air contaminant that exceed the de minimis level do not cause or contribute to a violation of the maximum acceptable ambient concentration (MAAC). As demonstrated in the Emissions Section above, no chemicals have emissions in excess of their respective Category *de minimis* thresholds.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility or project:

OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-15	Mobile Sources	not in source category
OAC 252:100-17	Incinerators	not type of emission unit
OAC 252:100-23	Cotton Gins	not type of emission unit
OAC 252:100-24	Grain Elevators	not in source category
OAC 252:100-47	Municipal Solid Waste Landfills	not in source category

SECTION VI. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Applicable]
 Final total facility emissions are greater than the PSD major source threshold of 250 TPY for regulated pollutants NOx and VOC. Compliance with PSD requirements is described in Section IV.

NSPS, 40 CFR Part 60 [Not Applicable]
Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units. This subpart affects steam generating units constructed after June 9, 1989, and with capacity between 10 and 100 MMBTUH. The new process heaters are smaller than the 10 MMBTUH threshold.
Subpart Kb, VOL Storage Vessels. This subpart regulates hydrocarbon storage tanks larger than 19,813 gallons capacity and built after July 23, 1984. Subpart Kb exempts pressure vessels capable of operating at 15 psig or higher, and all large storage tanks will be pressure vessels.
Subpart DDD, Polymer Manufacturing. This subpart affects manufacture of polyethylene, but the facility will receive polyethylene which has already been produced from chemical feedstocks.

NESHAP, 40 CFR Part 61 [Not Applicable]
 There are no emissions of any of the regulated pollutants: arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides, or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, concerns only process streams that contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63 [Not Applicable]
Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart was signed on February 26, 2004, and affects RICE with a site rating greater than 500 brake horsepower that are located at a major source of HAPs: existing, new, and reconstructed spark ignition 4 stroke rich burn (4SRB) RICE, any new or reconstructed spark ignition 2 stroke lean burn (2SLB) or 4 stroke lean burn (4SLB) RICE, or any new or reconstructed compression ignition (CI) RICE. This facility is a minor source of HAPs.

Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters. This subpart was promulgated on September 13, 2004. The subpart affects only major sources of HAPs.

CAM, 40 CFR Part 64

[Not Applicable]

Compliance Assurance Monitoring (CAM), as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source, that is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant greater than major source thresholds

There are no pollutant-specific emission units utilizing emissions control devices.

Chemical Accident Prevention Provisions, 40 CFR Part 68

[Applicable]

Flammable substances subject to this regulation will be stored on-site in quantities greater than the threshold quantities. The facility will submit a Risk Management Plan and comply with all applicable requirements. More information on this federal program is available on the web page: www.epa.gov/ceppo.

Stratospheric Ozone Protection, 40 CFR Part 82

[Subpart A and F Applicable]

These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

This facility does not utilize any Class I & II substances.

SECTION VII. COMPLIANCE

Tier Classification and Public Review

This application has been determined to be a **Tier III** based on the request for a construction permit for a new PSD-major source.

The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant has a current lease to accomplish the permitted purpose.

The applicant published the "Notice of Filing a Tier III Application" in *The Oklahoman*, a daily newspaper published in Oklahoma County, on August 25, 2004. The notice stated that the application was available for public review at the Yukon Public Library, 1200 Lake Shore Drive, Yukon OK 73099, or at the DEQ Air Quality Division's Main Office in Oklahoma City, 707 N Robinson, Oklahoma City, Oklahoma 73101. A draft of this permit was also made available for public review for a period of 30 days as stated in another published announcement on September 25, 2004, in *The Oklahoman*. That notice stated that the draft permit was available at the Yukon Public Library. The applicant also published a "Notice of Proposed Tier III Permit" in *The Oklahoman* on November 2, 2004. No comments were received from the public.

A public hearing on this permit was held on October 27, 2004, at the Yukon City Hall. No comments were received from the public during this meeting.

This facility is not located within 50 miles of the border of Oklahoma. Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web Page: <http://www.deq.state.ok.us>.

EPA Region VI has been requested to do concurrent review with the public. No comments were received from EPA.

Fees Paid

Part 70 source construction permit fee of \$2,000.

SECTION VIII. SUMMARY

The facility has demonstrated the ability to achieve compliance with applicable air pollution control rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of the construction permit is recommended.

**PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

**Nomaco Incorporated
Oklahoma City Polyethylene Foam Extrusion Facility**

Permit No. 2004-226-C (PSD)

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on August 18, 2004, with additional information received on September 10, 2004. The Evaluation Memorandum dated November 23, 2004, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction or operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. Points of emissions, emissions limitations, and requirements for each point:

[OAC 252:100-8-6(a)(1)]

EUG 1: Foam Extrusion

Point	Equipment	VOC Emissions	
		lb/hr *	TPY
EP-01	Foam Extrusion and Associated Operations	183.0	800.0

* monthly average

- A. Isobutane blowing agent usage shall not exceed 800 TPY (12-month rolling totals).
- B. Isobutane usage shall not exceed 0.6 lb/cubic foot foam. A monthly summary of foam volume produced and isobutane usage shall be prepared each calendar month showing compliance with this requirement.

EUG 2: Printing Operation

Point	Equipment	VOC Emissions	
		lb/hr *	TPY
--	Printing Operation	1.0	1.15

- A. Ink usage in the Printing Operation shall not exceed 230 gallons per year (12-month rolling total). Ink solvent content shall not exceed 10.0 lb/gal.

EUG 3: Combustion Equipment Emissions from the equipment listed below are estimated based on existing equipment items and are insignificant.

Point	Description	Capacity	Installed Date
EP-10	Emergency Generator	290-HP	2005
EP-11	Emergency Fire Pump	200-HP	2005
EP-14A	Process Heater	2.8 MMBTUH	2005
EP-14B	Process Heater	3.9 MMBTUH	2005
EP-14C	Process Heater	3.4 MMBTUH	2005

- A. The emergency generator and fire pump shall be operated no more than 500 hours per year (12-month rolling totals).
- B. The engines shall be fitted with non-resettable hour-meters. [OAC 252:100-8-6(a)]
- C. Fuel sulfur shall not exceed 0.4% by weight. [OAC 252:100-31]

EUG 4: Solids Handling System Emissions from the equipment listed below are estimated based on existing equipment items and are insignificant.

Point	Equipment	Capacity	Installed Date
EP-06 EP-07 EP-08 EP-09	Receiving Silos	--	2005
EP-02 EP-03	Scrap Foam Grinder	--	2005
EP-04 EP-05	Hard Purge Grinder	--	2005
EP-13 EP-14	Agglomerator	--	2005

- 2. Upon issuance of an operating permit, the permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
- 3. The permittee shall maintain records as listed below. These records shall be maintained on-site for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-43]
 - a. Operating hours for the emergency generator and fire pump (monthly and 12-month rolling totals).
 - b. Sulfur content of liquid fuels used in each engine (each shipment).
 - c. Ink usage (monthly and 12-month rolling totals).
 - d. Ink VOC content.
 - e. Foam production (cubic feet per month)
 - f. Blowing agent usage (monthly).

4. No later than 30 days after each anniversary date of the issuance of the initial Title V operating permit, the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]

5. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility. [OAC 252:100-8-6(d)(2)]
 - a. 40 CFR Part 60 NSPS
 - b. 40 CFR Part 61 NESHAP
 - c. 40 CFR Part 63 NESHAP
 - d. 40 CFR Part 64 Compliance Assurance Monitoring
 - e. OAC 252:100-15 Motor Vehicle Pollution Control Devices
 - f. OAC 252:100-23 Cotton Gins
 - g. OAC 252:100-24 Grain, Feed, or Seed Operations

6. The permittee shall apply for an operating permit within 180 days following commencement of operations. [OAC 252:100-8-6(b)(5)]

7. If construction is not completed within 18 months from initial operations, an analysis of Best Available Control Technology shall be submitted for the remaining phases of the facility construction. Updates to the BACT analysis shall be submitted at 18-month intervals until the project is completed or additional construction is cancelled. [OAC 252:100-8-34(d)]

**TITLE V (PART 70) PERMIT TO OPERATE / CONSTRUCT
STANDARD CONDITIONS
(October 15, 2003)**

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with Title V of the federal Clean Air Act (42 U.S.C. 7401, et seq.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, for revocation of the approval to operate under the terms of this permit, or for denial of an application to renew this permit. All applicable requirements (excluding state-only requirements) are enforceable by the DEQ, by EPA, and by citizens under section 304 of the Clean Air Act. This permit is valid for operations only at the specific location listed. [OAC 252:100-8-1.3 and 8-6 (a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [OAC 252:100-8-6 (a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from emergency conditions and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV. [OAC 252:100-8-6 (a)(3)(C)(iii)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-8-6 (a)(3)(C)(iv)]

C. Oral notifications (fax is also acceptable) shall be made to the AQD central office as soon as the owner or operator of the facility has knowledge of such emissions but no later than 4:30 p.m. the next working day the permittee becomes aware of the exceedance. Within ten (10) working days after the immediate notice is given, the owner operator shall submit a written report describing the extent of the excess emissions and response actions taken by the facility. Every written report submitted under this section shall be certified by a responsible official. [OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (iv)]

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), 8-6 (c)(1), and 8-6 (c)(2)(B)]

B. Records of required monitoring shall include:

- (1) the date, place and time of sampling or measurement;
- (2) the date or dates analyses were performed;
- (3) the company or entity which performed the analyses;
- (4) the analytical techniques or methods used;
- (5) the results of such analyses; and
- (6) the operating conditions as existing at the time of sampling or measurement.

[OAC 252:100-8-6 (a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report.

[OAC 252:100-8-6 (a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II of these standard conditions.

[OAC 252:100-8-6 (a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act.

F. Submission of quarterly or semi-annual reports required by any applicable requirement that are duplicative of the reporting required in the previous paragraph will satisfy the reporting requirements of the previous paragraph if noted on the submitted report.

G. Every report submitted under this section shall be certified by a responsible official.

[OAC 252:100-8-6 (a)(3)(C)(iv)]

H. Any owner or operator subject to the provisions of NSPS shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility or any malfunction of the air pollution control equipment.

[40 CFR 60.7 (b)]

TITLE V STANDARD CONDITIONS
October 15, 2003

3

I. Any owner or operator subject to the provisions of NSPS shall maintain a file of all measurements and other information required by the subpart recorded in a permanent file suitable for inspection. This file shall be retained for at least two years following the date of such measurements, maintenance, and records. [40 CFR 60.7 (d)]

J. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted. [OAC 252:100-8-6 (c)(4)]

K. All testing must be conducted by methods approved by the Division Director under the direction of qualified personnel. All tests shall be made and the results calculated in accordance with standard test procedures. The permittee may request the use of alternative test methods or analysis procedures. The AQD shall approve or disapprove the request within 60 days. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality. [OAC 252:100-8-6 (a)(3)(A)(iv) and OAC 252:100-43]

L. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 CFR Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-4-5 and OAC 252:100-41-15]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6 (c)(5)(A), (C)(v), and (D)]

B. The certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period; and a statement that the facility will continue to comply with all applicable requirements.

[OAC 252:100-8-6 (c)(5)(C)(i)-(iv)]

C. Any document required to be submitted in accordance with this permit shall be certified as being true, accurate, and complete by a responsible official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete.

[OAC 252:100-8-5 (f) and OAC 252:100-8-6 (c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. Except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5 (e)(8)(B) and OAC 252:100-8-6 (c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification.

[OAC 252:100-8-6 (c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit.

[OAC 252:100-8-6 (d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are listed in the Evaluation Memorandum and are summarized in the Specific Conditions of this permit.

[OAC 252:100-8-6 (d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, -5-2.2, and OAC 252:100-8-6 (a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6 (a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1 (d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege. [OAC 252:100-8-6 (a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6 (c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit. [OAC 252:100-8-6 (a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.

[OAC 252:100-8-6 (a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within 10 days after such date.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112 (G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation, reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.

[OAC 252:100-8-6 (a)(7)(C) and OAC 252:100-8-7.2 (b)]

B. The DEQ will reopen and revise or revoke this permit as necessary to remedy deficiencies in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

- (1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
- (2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (3) The DEQ determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.

C. If “grandfathered” status is claimed and granted for any equipment covered by this permit, it shall only apply under the following circumstances: [OAC 252:100-5-1.1]

- (1) It only applies to that specific item by serial number or some other permanent identification.
- (2) Grandfathered status is lost if the item is significantly modified or if it is relocated outside the boundaries of the facility.

D. To make changes other than (1) those described in Section XVIII (Operational Flexibility), (2) administrative permit amendments, and (3) those not defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII), the permittee shall notify AQD. Such changes may require a permit modification. [OAC 252:100-8-7.2 (b)]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6 (c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(18) for confidential information submitted to or obtained by the DEQ under this section):

- (1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6 (c)(2)]

SECTION XIV. EMERGENCIES

A. Any emergency and/or exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance. [The degree of promptness in reporting shall be proportional to the degree of danger.]

[OAC 252:100-8-6 (a)(3)(C)(iii)(II)]

B. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. [OAC 252:100-8-2]

C. An emergency shall constitute an affirmative defense to an action brought for noncompliance with such technology-based emission limitation if the conditions of paragraph D below are met.

[OAC 252:100-8-6 (e)(1)]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that:

- (1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
- (2) the permitted facility was at the time being properly operated;
- (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) the permittee submitted notice of the emergency to AQD within 24 hours of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken; and
- (5) the permittee submitted a follow up written report within 10 working days of first becoming aware of the exceedance.

[OAC 252:100-8-6 (e)(2), (a)(3)(C)(iii)(I) and (IV)]

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6 (e)(3)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6 (a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list. [OAC 252:100-8-2]

- (1) 5 tons per year of any one criteria pollutant.
- (2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.
- (3) 0.6 tons per year for any one category A substance, 1.2 tons per year for any one category B substance or 6 tons per year for any one category C substance as defined in 252:100-41-40.

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or federal applicable requirement applies is not trivial even if included on the trivial activities list. [OAC 252:100-8-2]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6 (a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

- (1) result in no net emissions increases,
- (2) are not modifications under any provision of Title I of the federal Clean Air Act, and
- (3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of 7 days, or 24 hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this subsection.

[OAC 252:100-8-6 (f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

- (1) No person shall cause or permit the discharge of emissions such that National Ambient Air Quality Standards (NAAQS) are exceeded on land outside the permitted facility. [OAC 252:100-3]
- (2) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (3) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]

- (4) For all emissions units not subject to an opacity limit promulgated under 40 CFR, Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. [OAC 252:100-25]
- (5) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
- (6) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- (7) Volatile Organic Compound (VOC) storage tanks built after December 24, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]
- (8) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]
- (9) Except as otherwise provided, no person shall cause or permit the emissions of any toxic air contaminant in such concentration as to cause or to contribute to a violation of the MAAC. (State only) [OAC 252:100-41]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

- A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances. [40 CFR 82, Subpart A]
 - (1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4.
 - (2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13.
 - (3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

- B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B. [40 CFR 82, Subpart F]

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166.
- (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158.
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Sources' Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in Oklahoma Administrative Code 252:100-8-7.2(a) only if the following procedures are followed:

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 Code of Federal Regulations (CFR) § 70.7 (h)(1). This public notice shall include notice to the public that this permit is subject to Environmental Protection Agency (EPA) review, EPA objection, and petition to EPA, as provided by 40 CFR § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 CFR § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 CFR § 70.8(a) and (c).

- (5) The DEQ complies with 40 CFR § 70.8 (c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
 - (6) The DEQ complies with 40 CFR § 70.8 (d).
 - (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8 (a).
 - (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
 - (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3 (a), (b), and (c), and by EPA as provided in 40 CFR § 70.7 (f) and (g).
 - (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.
- B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]



PART 70 PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 N. ROBINSON STREET, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Issuance Date: _____ Permit Number: 2004-226-C (PSD)

Nomaco, Incorporated

having complied with the requirements of the law, is hereby granted permission to construct a polyethylene foam extrusion plant in Sec. 35 – T12N – R 5W, on Reno Avenue between Sara Road and Morgan Road, Oklahoma City, Canadian County

subject to the following conditions, attached:

Standard Conditions dated October 15, 2003

Specific Conditions

In the absence of construction commencement, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

Executive Director, Department of Environmental Quality

Nomaco Incorporated
Attn: Mr. Julian Young
501 NMC Drive
Zebulon, NC 27597

Re: Permit Application No. 2004-226-C (PSD)
Polyethylene Foam Extrusion Plant
Section 35 – T12N – R5W
Canadian County, Oklahoma

Dear Mr. Young:

Enclosed is the permit authorizing construction of the referenced facility. Please note that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by March 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact our office at (405)702-4100.

Sincerely,

David S. Schutz, P.E.
AIR QUALITY DIVISION
Enclosure