ADEQ MINOR SOURCE AIR PERMIT

Permit No. : 0407-AR-7

IS ISSUED TO:

Glad Manufacturing Company 1700 North 13th Street Rogers, AR 72756 Benton County AFIN: 04-00100

THIS PERMIT IS THE ABOVE REFERENCED PERMITTEE'S AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 *ET SEQ*.) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Michael Bonds Chief, Air Division Date

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List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
СО	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
No.	Number
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM_{10}	Particulate Matter Smaller Than Ten Microns
SO2	Sulfur Dioxide
Тру	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Section I: FACILITY INFORMATION

PERMITTEE:	Glad Manufacturing Company
AFIN:	04-00100
PERMIT NUMBER:	0407-AR-7
FACILITY ADDRESS:	1700 North 13 th Street Rogers, AR 72756
MAILING ADDRESS:	1700 North 13 th Street Rogers, AR 72756
COUNTY:	Benton
CONTACT POSITION:	Stan Simpson – Site Manager
TELEPHONE NUMBER:	(479)246-6205
FAX NUMBER:	(479)659-6416
REVIEWING ENGINEER:	Paul Osmon

UTM North South (Y): Zone 15: 3981.54 km N

UTM East West (X): Zone 15: 402.33 km E

Section II: INTRODUCTION

Summary of Permit Activity

Glad Manufacturing Company owns and operates a facility in Rogers, Arkansas. This facility produces polyethylene products which are marketed under the "Glad" trade name. The products manufactured include plastic food wrap and various storage bags. This permit modification is issued to allow the facility to increase the polyethylene extrusion blown film towers at SN-06 from 16 to 18, to replace the current water based suffocation hazard warning printers with up to fifteen ink jet printers (the emission of which will be accounted for in SN-15 – non-point source VOC emissions), and to revise the process description to more adequately describe the process and to reflect that some of the equipment has been removed from service.

Process Description

Polyethylene resin pellets are the raw material for the manufacturing of plastic bags and wrap at the Rogers facility. The polyethylene resin is shipped to the facility in railcar, bulk hopper trucks, and standard trucks in cardboard gaylords. The resin is unloaded using a vacuum blower to remove it from the container and a pressure blower to fill any of thirty-one silos on site. The various types of resin are blended and pneumatically transferred to extruders where the polyethylene resin pellets are transformed into various types of polyethylene film.

In the blown film extrusion process, chilled air is supplied and exhausted in a single-pass manner through the extruded plastic "bubble". This flow of air maintains the shape and cools the plastic "bubble" as it is being extruded from the die; the internal cooling exhaust is then exhausted to the outside atmosphere. This system is known as the Internal Bubble Cooling System or IBC for short. On some of the lines, the plastic film is treated by passing it through a high voltage, high frequency corona treater. This process aids in film printing and film winding. Polyethylene film which is extruded and wound into mill roll form on the extrusion equipment is converted and packaged on bag machines. Extrusion dies used to produce polyethylene film are routinely removed from service and cleaned by "burning out the dies" in a batch-mode operated, natural gas fired, die cleaning oven. Combustion products from this cleaning process are exhausted to atmosphere.

Extruded polyethylene film is converted to bags on two types of conversion machines. Rotary Bag Machines (RBM's) form and then create individual bags in a process that includes sealing the side of the bags and separating them by the action of a hot knife that cuts through the polyethylene film to produce each individual bag. The heat and gases created with the action of the hot knife as it cuts through the layers of film is removed from the machine by an air exhaust system. A second type of converting process converts polyethylene film to bags using a "Blanket Manufacturing Process". This bag manufacturing process is different in that it creates a bag with hot film seal bars and then separates each bag in a mechanical process with a rotating knife versus using heat to cut the bag. Blanket Bag Machines do not exhaust directly to outside atmosphere. As a result of the mechanical action associated with creating the bag vs. heat, there is no machine specific point ventilation.

In the Gladlock Zipper Bag manufacturing process, polyethylene resin is extruded through a slot die process onto a water-chilled casting roll to form a sheet of plastic film. Vapors from the polyethylene extrusion process are exhausted to the outside atmosphere through fan driven exhaust system. A corona treatment process downstream of the extrusion process prepares the film for printing and folding. During this process the outside edges of the web are trimmed off. A blower transfer system transfers the edge-trim to a grinder for reprocessing. A bag-making machine converts the film into individual bags by cutting and sealing the film with a heated knife. The plastic fumes that are generated from this bag making process are exhausted to the outside atmosphere.

Curing ovens are used to heat finished Glad-Lock product for the purpose of accelerated aging. These curing ovens that operate at about 220° F are heated by a natural gas fueled forced air heat units. Emissions are from a burner vent and consist of by-products of the natural gas combustion process.

A portion of the polyethylene bags produced contains printed messages that are created through the use of printers which may be located in the film extrusion area or the film conversion area. Emissions from these printing operations include methyl ethyl ketone (MEK) and methanol.

In the slot extrusion process, molten polyethylene plastic is extruded from a slot die onto a water-chilled casting roll to form a thin plastic sheet. Gaseous polyethylene plastic by-products are emitted from the slot die which are exhausted to the outside atmosphere by an overhead exhaust fan. In the Glad Wrap converting process, large mill rolls are re-wound in smaller consumer size rolls. During this process the outside edges of the web are trimmed off. A blower system transfers the edge-trim to a grinder for reprocessing utilizing a venture type pneumatic collection system. Product collected in this system is returned to the process and extruded again.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective December 19, 2004

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

Total Allowable Emissions

TOTAL ALLOWABLE EMISSIONS			
	Emission Rates		
Pollutant	lb/hr	Тру	
PM	10.2	42.3	
PM ₁₀	10.2	42.3	
SO ₂	0.5	0.5	
VOC	17.2	74.4	
СО	0.5	0.6	
NO _x	0.5	0.8	
Total HAP	0.4	5.5	
Methyl Ethyl Ketone	0.2	5.0	
Methanol	0.1	0.3	
Other HAP	0.1	0.2	

Section III: PERMIT HISTORY

This facility was first registered with the Department on November 1, 1972 as a facility below the threshold for requiring an air permit.

Permit No. 0407-A was issued to Union Carbide Corporation on May 27, 1977. This was the initial permit for this facility.

Permit No. 0407-AR-1 was issued to Union Carbide Corporation on November 11, 1978. This permit modification was issued to allow a production increase.

Permit No. 0407-AR-2 was issued to Union Carbide Corporation on July 22, 1986. This modification was issued to reflect the sale of the facility to First Brand Corporation.

Permit No. 0407-AR-3 was issued to First Brands Corporation on September 22, 1987. This permit modification was issued to allow a facility expansion for the addition of two "Glad Lock" bag lines and two addition bubble cooling extrusion lines.

Permit No. 0407-AR-4 was issued to First Brands Corporation on October 17, 1990. Emission limits were: $PM/PM_{10} - 25.23$ tpy and VOC - 40.08 tpy,

Permit No. 0407-AR-5 was issued to First Brands Corporation on December 20, 1995. This permit modification was issued to allow the installation of a straw production line. Emission limits were: $PM/PM_{10} - 26.70$ tpy, SOx - 0.17 tpy, VOC - 56.57 tpy, CO - 0.89 tpy, $NO_x - 0.21$ tpy, Ozone - 0.30 tpy

Permit No. 0407-AR-6 was issued to First Brands Corporation on December 10, 1997. This permit modification was issued to allow the addition of Glad Lock lines 5 and 6 (SN10 and SN11) and to allow the polyethylene throughput to be increased to 300,000 tons per year. Emission limits were: $PM/PM_{10} - 47.8$ tpy, $SO_2 - 1.0$ tpy, VOC - 56.9 tpy, CO - 1.1 tpy, $NO_x - 1.0$ tpy, Ozone - 1.0 tpy, MEK - 2.3 tpy, Methanol - 0.3 tpy, and other HAPs - 0.2 tpy.

Permit No. 0407-AR-6 was transferred from First Brands Corporation to Glad Manufacturing Corporation on March 3, 2000.

Glad Manufacturing Company Permit Number: 0407-AR-7 AFIN: 04-00100 Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq., effective December 19, 2004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	#1 Vacuum Transport of Polyethylene Pellets from Railcar Filters	PM_{10}	0.6	2.5
02	#2 Vacuum Transport of Polyethylene Pellets from Railcar Filters	PM_{10}	0.6	2.5
03	#3 Vacuum Transport of Polyethylene Pellets from Railcar Filters	PM_{10}	0.6	2.5
04	Glad-Lock, Wrap, Reclaim Transport of Polyethylene Pellets Filters	PM_{10}	1.8	7.5
05	Resin Storage and Rail Car Loading Filters	PM_{10}	0.1	0.2
06	Extrusion Tower Exhaust (18 towers) and Handle-Tie Process Exhausts	VOC	4.8	21.0
	Conversion Bag Machine Exhaust	PM_{10}	0.1	0.2
		SO_2	0.1	0.4
07		VOC	5.6	24.3
		CO	0.1	0.2
		NO _x	0.1	0.4
		PM_{10}	6.0	26.2
	Wrap Extrusion Exhaust Filter	SO_2	0.1	0.1
08		VOC	0.5	2.0
		CO	0.1	0.1
		NO _x	0.1	0.1
09	Wrap Conversion Exhaust	PM_{10}	0.1	0.3
	Glad-Lock Extrusion Exhaust	PM_{10}	0.1	0.2
		SO_2	0.1	0.1
10		VOC	1.2	5.3
		CO	0.1	0.1
		NO _x	0.1	0.1
		PM_{10}	0.1	0.1
	Glad-Lock Conversion Exhaust	SO_2	0.1	0.1
11		VOC	0.9	3.7
		CO	0.1	0.1
		NO _x	0.1	0.1

12	Glad-Lock Curing Ovens #1 - #5	PM ₁₀	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.1	0.1
		NO _x	0.1	0.1
15	Non-Point Source Emissions	VOC	4.1	18.0

2. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	#1 Vacuum Transport of Polyethylene Pellets from Railcar Filters	РМ	0.6	2.5
02	#2 Vacuum Transport of Polyethylene Pellets from Railcar Filters	РМ	0.6	2.5
03	#3 Vacuum Transport of Polyethylene Pellets from Railcar Filters	РМ	0.6	2.5
04	Glad-Lock, Wrap, Reclaim Transport of Polyethylene Pellets Filters	PM	1.8	7.5
05	Resin Storage and Rail Car Loading Filters	PM	0.1	0.2
07	Conversion Bag Machine Exhaust	PM	0.1	0.2
08	Wrap Extrusion Exhaust Filter	PM	6.0	26.2
09	Wrap Conversion Exhaust	PM	0.1	0.2
10	Glad-Lock Extrusion Exhaust	PM	0.1	0.2
11	Glad-Lock Conversion Exhaust	PM	0.1	0.1
12	Glad-Lock Curing Ovens #1 - #5	PM	0.1	0.1
15	Non-Point Source Emissions	MEK Methanol Other HAP	0.2 0.1 0.1	5.0 0.3 0.2

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Limit	Regulatory Citation
All sources	20%	§18.501

- 4. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 5. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [Regulation 18, §18.901 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 6. Total polyethylene processed through the vacuum transport lines shall not exceed more than 90 tons per/hr or 300,000 tons per consecutive 12-month period. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 7. The facility shall only use pipeline quality natural gas as a fuel at the facility. Fuel usage per consecutive 12-month period at SN12 shall not exceed 0.865 MMSCF. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 8. The permittee shall maintain monthly records which demonstrate compliance with Specific Conditions #6 & 7. The permittee will update the records by the fifteenth day of the month following the month to which the records pertain. The permittee will keep the records onsite, and make the records available to Department personnel upon request. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 9. The permittee shall maintain monthly records and a rolling 12 month total of the plant wide non-point source Hazardous Air Pollutant emissions. HAPs emitted shall not be less than 1.0 RT unless this permit has been amended. The permittee will keep the records onsite, and make the records available to Department personnel upon request [Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Section V: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated March 7, 2005.

Description	Category
Polyethylene Film conversions to bags using "Blanket Machines"	Group A, No. 13
Corona Polyethylene File Treatment	Group B, No. 46
Press-N-Seal Manufacturing Process	Group A, No. 13
Maintenance Paint Spray Booth	Group B, No. 15
Resin Transfer Blowers	Group A, No. 13
Diesel Fuel Storage Tank	Group A, No. 2
Hot Glue Application for Core, Carton, and Case Sealing	Group A, No. 13
Cleaver Brooks 1.674 MMBtu/hr Hot Water boiler	Group A, No. 1
Scrap Film Reclaim Operations	Group A, No. 13
Extrusion Tower Once Thru Shroud Cooling	Group A, No. 13
Two Natural Gas fueled Standby Generators (One 15 Kw & one 40 Kw)	Group A, No. 12
Welding Work Stations	Group B, No. 14
Two Parts Cleaning Stations	Group B, No. 14

Section VI: GENERAL CONDITIONS

- 1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
- 2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [Regulation 19, §19.704 and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [Regulation 19, §19.410(B) and/or Regulation 18, §18.309(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Arkansas Department of Environmental Quality Air Division ATTN: Compliance Inspector Supervisor Post Office Box 8913 Little Rock, AR 72219

- 7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 8. The permittee will provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. Sampling ports adequate for applicable test methods
 - b. Safe sampling platforms
 - c. Safe access to sampling platforms
 - d. Utilities for sampling and testing equipment
- 9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [Regulation 19, §19.303 and/or Regulation 18, §18.1104 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [Regulation 19, §19.601 and/or Regulation 18, §18.1101 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.
 - b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
 - c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to

reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.

- 11. The permittee shall allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
 - c. To inspect any monitoring equipment or monitoring method required in this permit;
 - d. To sample any emission of pollutants; and
 - e. To perform an operation and maintenance inspection of the permitted source.
- 12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [Regulation 19, §19.410(A) and/or Regulation 18, §18.309(A) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated '8 1 106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [Regulation 19, §19.407(B) and/or Regulation 18, §18.307(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

- This permit supersedes and voids all previously issued air permits for this facility.
 [Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]