

ADEQ MINOR SOURCE AIR PERMIT

Permit #: 2042-AR-1

IS ISSUED TO:

Cryovac, Inc. a subsidiary of Sealed Air Corporation
4 Bekaert Drive
Rogers, AR 72756
Benton County
AFIN: 04-00715

THIS PERMIT IS CRYOVAC, INC.'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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Section I: FACILITY INFORMATION

PERMITTEE: Cryovac, Inc. – a subsidiary of Sealed Air Corporation

AFIN: 04-00715

PERMIT NUMBER: 2042-AR-1

FACILITY ADDRESS: 4 Bekaert Drive
Rogers, AR 72756

COUNTY: Benton

PLANT CONTACT: Derek Kahle

PLANT CONTACT POSITION: Environmental Coordinator

TELEPHONE NUMBER: (479)936-2100

CORPORATE CONTACT: Division Environmental Engineer – Randy Jones

CORPORATE MAILING ADDRESS: P.O. Box 464, Duncan, SC 29334-0464

TELEPHONE NUMBER: (864)433-2334

REVIEWING ENGINEER: Paul Osmon

UTM North-South (Y): Zone 15 4023.29 km N

UTM East-West (X): Zone 15 395.74 km E

Section II: INTRODUCTION

Summary

Cryovac, Inc. (a subsidiary of Sealed Air Corporation) (Cryovac) owns and operates a plant that manufactures and prints plastic bags for the food processing industry located at 4 Bekaert Drive in Rogers. Emissions from the facility consist of ozone, volatile organic compounds, and products of combustion of natural gas. This permit is the first modification of the air permit for the facility. This modification is issued to allow minor quantities of hazardous air pollutants in the inks and solvents used at the facility (even though none are anticipated).

Process Description

The process for the Rogers plant produces plastic bags for the food packing industry. The process utilizes extrusion of polyolefin resins to form plastic “tape”, stretching the tape to produce a thin “tubing”, which is then printed with customer specified logos and formed into bags that are sealed on one end. Corn starch powder is applied to the tubing during the bag making process to lubricate the material before being boxed for shipment to the customer. Process areas are designed to comply with applicable food laws and must be operated to maintain compliance with food grade standards.

The extrusion process employs proprietary extrusion techniques to form a thick plastic cylinder, referred to as “tape”, from polyolefin resins. The resins, which arrive in pellet form from the supplier via truck and rail, are handled using resin conveying equipment. The resins are stored in large silos and in smaller bins and boxes.

Once the tape is extruded, it is run through an Electronic Cross Linking Unit (ECLU) which cross links the polymers to provide certain functional characteristics. The ECLU forms some ozone and trace NO_x due to inadvertent ionization of cooling air and is vented to the atmosphere. The emission points for these emissions will be SN-001 and SN-002.

The cross linked tape is then heated for softening and stretched to produce a thinner intermediate product called tubing in a process called “racking”. The tubing is then wound into rolls and staged for printing. The size of the bags varies based on customer needs. Some bags may not require printing, and the tubing will go directly to bag making. The extrusion process uses electric heat as well as steam in order to form the plastic structures.

In the printing process, but before ink is applied, the tubing passes through a surface treater mounted on the printing press to create a surface condition that will accept inks. The treater creates small quantities of ozone due to the ionization of the oxygen in the air. This small amount of ozone is also vented to the atmosphere. The emission points for these emissions are SN-003 and SN-004.

The printing process uses flexographic printing techniques to create a printed image on the plastic tubing. There will be two (2) 10-color flexographic presses. Many print jobs will not require all 10 colors. The presses have dryers between flexographic stations and a drying tunnel to complete the process before being rewound into printed rolls destined for bag making.

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The emissions from the printing operation go to a regenerative thermal oxidizer (RTO) unit for control of VOCs and HAPs. The emission point for all RTO emissions is SN-005. Volatile organic compounds and hazardous air pollutants that escape the capture system will be emitted as non-point source emissions (SN-008).

The inks used in printing are blended on site for proper color and viscosity. The use of any single hazardous air pollutant (HAP) in the inks and solvents will be limited to less than 1%, or 0.1% for HAPs defined as carcinogens by the US OSHA. Although no HAPs are expected to be in the solvents used, for modeling purposes the pseudo HAP will be assumed to have a TLV of 5 ppm (20 mg/m³) or higher.

The bag making process uses a heated wire to cut the bags to length and seal one end of short sections of the tubing. Corn starch powder is used to aid in the manufacture of the plastic bags and for improved handling of the finished bags by the customer. There are no emissions from this operation due to a closed loop starch handling systems.

Two boilers will be employed to supply steam to the facility with one of these boiler for backup use only. The boiler stacks are designated as emission points SN-006 and SN-007. The plant will also have a small electrical generator for emergency power.

The finished bags are boxed and shipped to customers via truck. Some semi-finished tubing may also be shipped to other Cryovac locations for converting.

Regulations

The facility is subject to regulation under the *Arkansas Air Pollution Control Code* (Air Code) and the *Arkansas Plan of Implementation for Air Pollution Control* (Regulation 19). The boilers are not subject to 40 CFR 60, Subpart Dc because they are rated 7 MMBtu/hr.

The following table is a summary of the facility's total emissions.

Table 1 - Total Allowable Emissions

Total Allowable Emissions		
Pollutant	Emissions Rates	
	lb/hr	tpy
PM	0.3	0.7
PM ₁₀	0.3	0.7
SO ₂	0.3	0.3
VOC	54.0	60.0
CO	1.4	5.9
NO _x	1.8	7.6
Total HAP	2.2	2.4
Ozone	1.42	5.60

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Section III: PERMIT HISTORY

Permit No. 2042-A was issued to Cryovac Inc. a subsidiary of Sealed Air Corporation on October 16, 2003 for the initial construction and operation of the facility. Permit limits in the initial permit were: PM/PM₁₀ – 0.7 tpy, SO₂ – 0.3 tpy, VOC – 60.0 tpy, CO – 5.9 tpy, NO_x – 7.6 tpy and Ozone – 5.6 tpy.

Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee will not exceed the emission rates set forth in the following table. All sources are permitted at maximum capacity except the regenerative thermal oxidizer unit ton per year limit. The regenerative thermal oxidizer unit ton per year limit is based on the usage limit in Specific Condition No. 6 and proper operation of the regenerative thermal oxidizer unit. [§19.501 *et seq.* of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective December 19, 2004 (Regulation 19) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 2 - Criteria Pollutants

SN	Description	Pollutant	lb/hr	Tpy
SN-001	Tape Extrusion Cross Linking Unit- Line 1	NO _x	0.1	0.3
SN-002	Tape Extrusion Cross Linking Unit- Line 2	NO _x	0.1	0.3
SN-005	Regenerative Thermal Oxidizing Unit – Printing – Two presses	PM ₁₀	0.1	0.1
		SO ₂	0.1	0.1
		VOC	8.2	9.0
		CO	0.2	0.7
		NO _x	0.2	0.8
SN-006	Boiler No. 1 Natural Gas Fuel 7 MMBtu/hr	PM ₁₀	0.1	0.3
		SO ₂	0.1	0.1
		VOC	0.1	0.2
		CO	0.6	2.6
		NO _x	0.7	3.1
SN-007	Boiler No. 2 Natural Gas Fuel 7 MMBtu/hr	PM ₁₀	0.1	0.3
		SO ₂	0.1	0.1
		VOC	0.1	0.2
		CO	0.6	2.6
		NO _x	0.7	3.1
SN-008	Non-point Source Emissions – (Printing emissions not captured)	VOC	45.6	50.6

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2. The permittee will not exceed the emission rates set forth in the following table. All sources are permitted at maximum capacity except the regenerative thermal oxidizer unit ton per year limit. The regenerative thermal oxidizer unit ton per year limit is based on the usage limit in Specific Condition No. 6 and proper operation of the regenerative thermal oxidizer unit. [§18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 3 - Non-Criteria Pollutants

SN	Description	Pollutant	lb/hr	tpy
SN-001	Tape Extrusion Cross Linking Unit- Line 1	Ozone	0.35	1.52
SN-002	Tape Extrusion Cross Linking Unit- Line 2	Ozone	0.35	1.52
SN-003	Surface Treater – Printing Line No.1	Ozone	0.37	1.28
SN-004	Surface Treater – Printing Line No.2	Ozone	0.37	1.28
SN-005	Regenerative Thermal Oxidizing Unit – Printing – Two presses.	PM HAPs	0.1 0.4	0.1 0.4
SN-006	Boiler No. 1 Natural Gas Fuel 7 MMBtu/hr	PM	0.1	0.3
SN-007	Boiler No. 2 Natural Gas Fuel 7 MMBtu/hr	PM	0.1	0.3
SN-008	Non-point Source Emissions – (Printing emissions not captured)	HAPs	1.8	2.0

3. Visible emissions will 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 §8-4-304 and §8-4-311]

Table 4 - Visible Emissions

SN	Limit	Regulatory Citation
SN-001	5%	§18.501 of Regulation 18
SN-002		
SN-003		
SN-004		
SN-005		
SN-006		
SN-007		

4. The permittee will 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. [§18.801 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31]
5. The permittee will not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [§18.901 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
6. The permittee will not use more than 501 tons of volatile organic compounds by material balance in the inks and solvents at the facility per consecutive 12-month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
7. The permittee shall only use inks or solvents that contain less than 1.00 weight percent of any single HAP or less than 0.1 weight percent of any HAP that is defined as a carcinogen by US OSHA in the printing materials used. All HAPs used in concentrations greater than 0.1% shall have a TLV greater than 20 mg/m³. The HAP content as stated on the MSDS sheet will be used for verifying that the HAP content meets this condition of the permit. [§18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
8. The permittee will maintain monthly records which demonstrate compliance with Specific Condition No. 6 and 7. Records of the volatile organic compound usage shall be in the form of a material balance and the content records shall consist of MSDS sheets for each compound used. 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. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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9. The permittee shall not exceed total HAP emissions of 2.0 tons per 12 month rolling total. The permittee will maintain monthly records and 12 month rolling totals of the usage of each HAP in the inks and solvents used at the facility and the estimated emissions from their usage. The estimated emissions calculations shall be based on 90% capture and 98% destruction efficiencies. 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. [§18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-001, SN-002, SN-003, and SN-004 Conditions

10. The maximum power output from the surface treaters shall not exceed 25 KW per unit. [§18.1004 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-005 Conditions

11. The permittee shall maintain a combustion zone temperature in the regenerative thermal oxidizer in excess of 1,400 ° Fahrenheit. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]
12. The permittee shall operate all presses with a hard wired override which prevents operating the presses unless the RTO combustion zone temperature is in excess of 1,400 ° Fahrenheit. Any provision for by-pass of this interlock shall be keyed switch controlled with keys only available to management level employees. A log shall be maintained at the switch/valve of each press exhaust for the purpose of recording each time the exhaust is vented to the atmosphere. This log shall include the time of the occurrence, the volume of ink used, the length of the production run and the VOC content of the ink. [§19.705 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
13. The permittee shall keep all doors normally closed on the two presses as well as maintain all guards and covers in place. The permittee shall annually evaluate the presses to assure they are maintained to original specifications and balanced to original settings. A record of such evaluation shall be maintained on site and made available to Department personnel upon request. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

SN-006 and SN-007 Conditions

14. The permittee shall only use pipeline quality natural gas as a fuel in the regenerative thermal oxidizer and the boilers at this facility. Pipeline quality natural gas is defined as gas which contains less than 0.3 grains/100 SCF of H₂S and that H₂S constitutes greater than 50% by weight of the sulfur by weight in the natural gas. [§19.705 of Regulation 19, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR 70.6]

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 November 30, 2004.

Table 5 - Insignificant Activities

Description	Category
Resin unloading, transfer systems, and storage silos	Group A, No. 13
Laboratory Operations	Group A, No. 5
Emergency Generator	Group A, No. 13
Plate Making	Group A, No. 13
Slitting and Rewinding Operations	Group A, No. 13
Bag cutting, Sealing, and Packaging.	Group A, No. 13
Corn Starch Handling	Group A, No. 13

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. [§19.704 of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19) 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. [§19.410(B) of Regulation 19 and/or §18.309(B) of the Arkansas Air Pollution Control Code (Regulation 18) 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. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 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. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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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. [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 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: [§19.702 of Regulation 19 and/or §18.1002 of Regulation 18 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. [§19.303 of Regulation 19 and/or §18.1104 of Regulation 18 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: [§19.601 of Regulation 19 and/or §18.1101 of Regulation 18 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,

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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 will 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. [§19.410(A) of Regulation 19 and/or §18.309(A) of Regulation 18 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

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falsification or omission of relevant information. [§19.407(B) of Regulation 19 and/or §18.307(B) of Regulation 18 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 §8-4-304 and §8-4-311]
17. 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 §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)]