STATE OF MARYLAND
# DEPARTMENT OF THE ENVIRONMENT
## Air and Radiation Management Administration
2500 Broening Highway
Baltimore, Maryland 21224

AIR AND RADIATION MANAGEMENT ADMINISTRATION
MAR 7 1995
Permit to Construct [X]
Registration Update [ ]
Initial Registration [ ]

(ELK Creek)
Relocation of 07-0087-6-0023 slf Confidential

APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

1A OWNER OF EQUIPMENT /COMPANY NAME: W. L. Gore & Associates, Inc.

MAILING ADDRESS/STREET: 1320 Appleton Road

CITY: Elkton STATE: MD ZIP: 21921

TELEPHONE NUMBER: ( 410 ) 392-3800

DO NOT WRITE IN THIS BLOCK

2 REGISTRATION NUMBER

County No. (1-2): 07

Premises No. (3-6): 0101

Registration Class (7): 6

Equipment No. (8-11): 0108

DATA YEAR (12-13): 95

APPLICATION DATE: _____

SIGNATURE: Linda L Farrell

PRINT NAME AND TITLE: Linda L. Farrell, Associate

DATE:

1B EQUIPMENT LOCATION AND TELEPHONE NUMBER (IF DIFFERENT FROM ABOVE)

STREET #, STREET NAME: Same as above

CITY, TOWN: STATE: ZIP: TELEPHONE: ( )

PREMISES NAME (IF DIFFERENT FROM ABOVE): Elk Mills I (Premise #0101) GORE, W.L. - ELKMILLS I PLANT slf

3 STATUS

| | STATUS (15) | New Construction Begun MONTH/YEAR (16-19) | New Construction Completed MONTH/YEAR (20-23) | Existing Initial Operation MONTH/YEAR (20-23) |
|---|---|---|---|---|
| A. NEW EQUIPMENT | A | 0295 | 0495 | |
| B. MODIFICATION TO EXISTING EQUIPMENT | | | | |
| C. EXISTING EQUIPMENT | | | | |

4 DESCRIBE THIS EQUIPMENT: MAKE, MODEL, FEATURES, MANUFACTURER; INCLUDE MAXIMUM HOURLY INPUT RATE, ETC.

Custom process for coating substrates

5 WORKMEN'S COMPENSATION COVERAGE

- COMPANY Liberty Mutual

EXPIRATION DATE 03-31-95

BINDER/POLICY NUMBER WA1-13D-046681-014

6 A. NUMBER OF PIECES OF IDENTICAL EQUIPMENT UNITS TO BE REGISTERED/PERMITTED AT THIS TIME 1

B. NUMBER OF STACKS/EMISSION POINTS ASSOCIATED WITH THIS EQUIPMENT 1

7 PERSON INSTALLING THIS EQUIPMENT (IF DIFFERENT FROM (1) ABOVE)

NAME Same TITLE

COMPANY

MAILING ADDRESS/STREET

CITY, TOWN STATE TELEPHONE ( )

3-20-95 Equipment code for this Ara-5 obtained from inventory printout for previous registration #. /slf

WHITE-ARMA * GREEN-Premises * CANARY-Local Dept. * PINK-Applicant's copy

AMA-5 Revised

8 MAJOR ACTIVITY, PRODUCT OR SERVICE OF COMPANY AT THIS LOCATION

SIC-2821 pkf

Coating

9 CONTROL DEVICES ASSOCIATED WITH THIS EQUIPMENT

NONE [ ] 24-0

| SIMPLE/MULTIPLE CYCLONE | SPRAY/ADSORB TOWER | VENTURI SCRUBBER | CARBON ADSORBER | ELECTROSTATIC PRECIPITATOR | BAGHOUSE | THERMAL/CATALYTIC AFTERBURNER | DRY SCRUBBER |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

OTHER [ ] DESCRIBE _____ 24-9

10 ANNUAL FUEL CONSUMPTION FOR THIS EQUIPMENT

| OIL - 1000 GALLONS | SULFUR % | GRADE | NATURAL GAS - 1000 $FT^3$ | LP GAS - 100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | A B C D E F |

| COAL - TONS | SULFUR % | ASH % | WOOD - TONS | MOISTURE % |
|---|---|---|---|---|
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

Other Fuels _____ (Specify Type) [ ] 66-1 Annual Amount Consumed _____ (Specify Type)

Other Fuel _____ (Specify Type) [ ] 66-2 Annual Amount Consumed _____ (Specify Units)

1 = Coke 2 = COG 3 = BFG 4 = Other

11 OPERATING SCHEDULE [for this equipment]

| CONTINUOUS OPERATION | BATCH PROCESS | HOURS PER BATCH | BATCH PER WEEK | HOURS PER DAY | DAYS PER WEEK | DAYS PER YEAR |
|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | 24 | 7 | 340 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

SEASONAL VARIATION IN OPERATION:

| NO VARIATION | WINTER PERCENT | SPRING PERCENT | SUMMER PERCENT | FALL PERCENT | (TOTAL SEASONS = 100%) |
|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 | |

12 EQUIVALENT STACK INFORMATION - IS EXHAUST THROUGH DOORS, WINDOWS, ETC., ONLY? [N] Y OR N 85

| | HEIGHT ABOVE GROUND (FT) | INSIDE DIAMETER AT TOP (INCHES) | EXIT TEMPERATURE (°F) | EXIT VELOCITY (FT/SEC) |
|---|---|---|---|---|
| IF NOT, THEN → | 50 | 14 | 176 | 129 |
| | 86-88 | 89-91 | 92-95 | 96-98 |

NOTE: ATTACH A BLOCK DIAGRAM OF PROCESS LINE, INDICATING NEW EQUIPMENT AS REPORTED ON THIS FORM AND ALL EXISTING EQUIPMENT, INCLUDING CONTROL DEVICES AND EMISSION POINTS.

13 INPUT MATERIALS [for this equipment only]
IS ANY OF THIS DATA TO BE CONSIDERED CONFIDENTIAL? [Y] Y OR N

ONLY MSDSs ~~[illegible]~~ ARE CONFIDENTIAL PER TELECON WITH ERIC SEWARD. CJE

| NAME | CAS NUMBER (if applicable) | INPUT RATE PER HOUR | UNITS | PER YEAR (1) | UNITS |
|---|---|---|---|---|---|
| 1. Inert Substrate | N/A | N/A | | N/A | |
| 2. Release Paper | N/A | N/A | | N/A | |
| 3. Coating | N/A | 101 | lbs | 411 | tons |
| 4. N-Methylpyrrolidone | 872-50-4 | 17.2 | lbs | 4.4 | tons |
| 5. (Cleaning Solvent) | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| TOTAL | | | | | |

(1) Denotes design conditions (max usage)

14 OUTPUT MATERIALS [for this equipment]
PROCESS/PRODUCT STREAM

| NAME | CAS NUMBER (if applicable) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Coated Substrate | N/A | N/A | | N/A | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| TOTAL | | | | | |

15 WASTE STREAMS - SOLID AND LIQUID

| NAME | CAS NUMBER (if applicable) | OUTPUT RATE PER HOUR | UNITS | PER YEAR (1) | UNITS |
|---|---|---|---|---|---|
| 1. N-Methylpyrrolidone | 872-50-4 | 17.2 | lbs | 4.4 | tons |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| TOTAL | | | | | |

(1) Denotes design conditions (max usage)

16 TOTAL STACK EMISSIONS (FOR THIS EQUIPMENT ONLY) IN POUNDS PER OPERATING DAY

| PARTICULATE MATTER | OXIDES OF SULFUR | OXIDES OF NITROGEN |
|---|---|---|
| | | |
| 99-104 | 105-110 | 111-116 |

| CARBON MONOXIDE | VOLATILE ORGANIC COMPOUNDS | PM-10 |
|---|---|---|
| | 18 | |
| 117-122 | 123-128 | 129-134 |

CJE

17 TOTAL FUGITIVE EMISSIONS (FOR THIS EQUIPMENT ONLY) IN POUNDS PER OPERATING DAY

| PARTICULATE MATTER | OXIDES OF SULFUR | OXIDES OF NITROGEN |
|---|---|---|
| | | |
| 135-139 | 140-144 | 145-149 |

| CARBON MONOXIDE | VOLATILE ORGANIC COMPOUNDS | PM-10 |
|---|---|---|
| | | |
| 150-154 | 155-159 | 160-164 |

METHOD USED TO DETERMINE EMISSIONS (1 = ESTIMATE 2 = EMISSION FACTOR 3 = STACK TEST 4 = OTHER)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| 4 | 4 | 4 | 4 | 4 | 4 |
| 165 | 166 | 167 | 168 | 169 | 170 |

CJE

AIR MANAGEMENT USE ONLY

18 DATE REC'D. LOCAL _____ DATE REC'D. STATE 3-7-95 RETURN TO LOCAL JURISDICTION DATE _____ BY _____

REVIEWED BY LOCAL JURISDICTION DATE _____ BY _____ REVIEWED BY STATE DATE 6-5-95 BY EARLY

19

| INVENTORY DATE MONTH YEAR | EQUIPMENT CODE | SCC CODE |
|---|---|---|
| 0495 | 104 | 39999995 |
| 171-174 | 175-177 | 178-185 |

GALLONS

20

| ANNUAL OPERATING RATE | MAXIMUM DESIGN HOURLY RATE | PERMIT TO OPERATE MONTH | TRANSACTION DATE (MM/DD/YR) |
|---|---|---|---|
| 1626 | 14 | 0 | 060595 |
| 186-192 | 193-199 | 200-201 | 202-207 |

| STAFF CODE | VOC CODE | SIP CODE | REGULATION CODE | CONFIDENTIALITY |
|---|---|---|---|---|
| Y25 | 0 | 0 | 0 | N |
| 208-210 | 211 212 | 213 214 | 215-218 | 219 |

POINT DESCRIPTION

COATING OF TEFLON

220-238

ACTION A 239

A: ADD
C: CHANGE

AMA-5 Revised

AIR AND RADIATION MANAGEMENT ADMINISTRATION

MAR 7 1995

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## Air and Radiation Management Administration
(410) 631-3230

**Form 5A:** Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06)

DO NOT WRITE IN THIS SPACE

Company Name W. L. Gore & Associates, Inc.

1. Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

| | EMISSION REDUCTION OPTION | % EMISSION REDUCTION | COSTS CAPITAL | COSTS ANNUAL OPERATING |
|---|---|---|---|---|
| 1. | See Attachment 1 | 33-99% (chemical dependant) | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

2. Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

See Attachment 1

]

3. List screening levels and highest estimated off-site concentrations (ug/m³) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged from the installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

| | TOXIC AIR POLLUTANT | CAS NUMBER | SCREENING LEVEL(S) 1-HR | 8-HR | ANNUAL | OFF-SITE CONCENTRATIONS 1-HR | 8-HR | ANNUAL |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | N-Methylpyrrolidone | 872-50-4 | | 4,000 | | 164.2 | | |
| | Nonylphenol | 25154-52-3 | | 66 | | 21.26 | | |

If unable to use a Screening Analysis, check the box, and attach the Second Tier Analysis or Special Permit request to this form. ☐

(1) **Premises** is defined as: "all the installations ~~or other~~ sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B (12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B (2)).

AIR AND RADIATION. MANAGEMENT ADMINISTRATION

MAR 7 1995

Air and Radiation Management Administration
(410) 631-3230

**Form 5B:** Emission Data
Fill out one form 5B for each stack or other emission point subject to the regulations (See the General Instructions for more detail).

DO NOT WRITE IN THIS SPACE

Company Name W. L. Gore & Associates, Inc.

1. Number Identifying This Emission Point On Required Plot Plan Coater
(If applicable, list company's internal I.D. GS1)

2. Brief description of Emission Point, Associated Equipment and Control Devices

Coater w/trough

3. Emissions Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes per hour | Hours per day | Days per week | Weeks per year |
|---|---|---|---|---|---|
| X | | 60 | 24 | 7 | 48.5 |

| Seasonal Variation: | None | Winter percent | Spring percent | Summer percent | Fall percent |
|---|---|---|---|---|---|
| | X | | | | |

4. Stack Information

Height above ground (ft) 50

Height above structures (ft) 25

Inside diameter at top of round stack (ft) 1.17

Dimensions at top of rectangular stack (ft) _____ x _____

Exit temperature (F) 176 (max)

Exit velocity (ft/min) 7764

Gas volume (acfm) 7225

Distance to nearest property line (ft) 150

Dimensions of building stack is on (ft): Height 25 Length 125 Width 50

5. Control Devices Associated With This Stack or Emission Point

| Control Device | Number | Control Device | Number |
|---|---|---|---|
| 0. None | X | 7. Elec. Precipitator | |
| 1. Simple cyclone | | 8. Baghouse | |
| 2. Multiple cyclone | | 9. Thermal afterburner | |
| 3. Spray tower | | 10. Catalytic afterburner | |
| 4. Absorption tower | | 11. Other (specify) | |
| 5. Venturi scrubber | | | |
| 6. Carbon adsorber | | | |

WHITE-Air Management Adm. • GREEN-Di...

6. Criteria Pollutant Emissions (attach supporting documentation)

See Supplemental Data Sheets

| Criteria Pollutants | Estimated Emissions: Design Capacity (lb/hr) | Projected (lb/hr) | Operations (ton/yr) (1) Design |
|---|---|---|---|
| Particulate Matter | | | |
| PM10 | | | |
| Oxides of Sulfur | | | |
| Oxides of Nitrogen | | | |
| Carbon Monoxide | | | |
| VOC (Total) | 17.2 (1) | 17.2 | 12.6 |
| Lead | | | |

(1) Represents worst case b/c we are either coating OR cleaning

7. Toxic Air Pollutant Emissions (attach supporting documentation)

See Supplemental Data Sheets

| Toxic Air Pollutants (list all) | CAS Number | Estimated Emissions: Design Capacity (lb/hour) | Projected Operations (1) (lb/hour) | Projected Operations (1) (ton/year) | Used for Form 5A, Part 3 (2) (lb/hour) | Used for Form 5A, Part 3 (2) (ton/year) |
|---|---|---|---|---|---|---|
| 1. Nonylphenol | 25154-52-3 | 2.01 | 2.01 | 1.9 | 2.01 | 8.3 |
| 2. N-Methylpyrrolidone | 872-50-4 | 17.2 | 17.2 | 1.0 | 17.2 | 4.4 |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.

(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxics regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.
1320 APPLETON ROAD • P.O. BOX 1320 • ELKTON, MARYLAND 21922-1320
PHONE: 410/392-3800 • FAX: 410/996-3805

April 13, 1995

Maryland Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

RECEIVED
APR 20 1995
AIR & RADIATION MANAGEMENT ADMINISTRATION

Attention: Mr. Chris Early

re: W.L. Gore & Associates, Inc.
Elk Mills I Site, Premise #0101

Dear Mr. Early:

This letter is in follow-up to our phone conversation today regarding the Permit to Constuct Application for the 'GS1' Coating operation that was submitted on February 28, 1995. Upon your review of the permit, you pointed out that our request did not satisy Regulation 26.11.06.06.B.02(c) because we were proposing to emit in excess of 20 lbs/day(16 lbs/day Nonylphenol and 8.5 lbs/day NMP).

As you will recall from the original permit we are coating an inert substrate(i.e., film) with a resin. The resin is a mixture of Arocy-M30, Nonylphenol and Cobaltic Acetylacetonate. The latter two chemicals catalyze the basic resin. In reviewing our permit, it was evident that the 16 lbs/day of Nonylphenol(NP) was a worst case scenario. We made the 'simple' assumption that all of the NP volatilized, even though we knew a portion of it was reacting. Up to this time, we weren't intested in how much NP was reacting. Thus, we submitted a sample to our analytical lab and they analyzed it using thermal desortion GC/MS/IR. A copy of the analysis is attached for your review.

The testing indicates that the total volatiles were 344 w/w ppm, which were predominantly NP. Thus converting this to a rate, we are actually emitting 0.28 lbs/day of NP, not the 16 lbs/day that I originally reported. I have attached the new emission calculation and dispersion modelling for your review.

I hope the information I am providing today is adequate for the permitting process. I'm sorry for the original confusion, but I was unaware of the above cited regulation since my copy of the regultions date back to 1989. If you have any questions, please contact Eric Seward at x3942 and he will get in touch with me. Thanks very much for you assistance in this matter.

Sincerely,

Linda L. Farrell

Linda L. Farrell
Associate

/llf
cc:
Janelle Elliott
Eric Seward

GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.

1320 APPLETON ROAD • P.O. BOX 1320 • ELKTON, MARYLAND 21922-1320
PHONE: 410/392-3800 • FAX: 410/996-3805

February 28, 1995

Maryland Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

Attention: Ms. Marcelina Gurley

re: W. L. Gore & Associates, Inc.
Elk Mills I Site, Premise #0101

Dear Ms. Gurley:

Attached are the completed materials relevant to applying for a permit to construct for a full-width coating line. This coater was previously in use at W.L. Gore & Associates' Elk Creek I facility(Pemise #07-0087) located at 295 Blue Ball Road, Elkton, MD. While this coater was in use, it operated under Permit No. 6-0023.

A description of the process is as follows. A small quantity of coating(i.e., resin) is poured into a trough which is located adjacent to one of the rolls. The rolls are heated, internally, with oil through a closed loop recirculating system. The coating is layed down onto an inert substrate which is eventually 'married' to release paper. After each run, the rolls are cleaned with approximately two gallons of cleaning solvent for 30 minutes. Of this quantity of solvent, half is evaporated and half is collected and disposed of as liquid waste. Thus, the emissions for this operation include one of the raw materials which go into making up the coating and the cleaning solvent.

Please notify me at (410)996-3819 if you have any questions regarding the enclosed permit application as we would like to expedite the permitting process. As always, thank you for your timely handling of this application.

Sincerely,

Linda L. Farrell

Linda L. Farrell
Associate

/llf
Attachments


GORE-TEX is a trademark of W. L. Gore & Associates, Inc.

W. L. GORE & ASSOCIATES, INC.

COMPANY CONFIDENTIAL

1320 APPLETON ROAD • P.O. BOX 1320 • ELKTON, MD 21921
410/392-3800

DATE: April 12, 1995

MEMO TO: Janelle Elliott

FROM: Joe Kosman

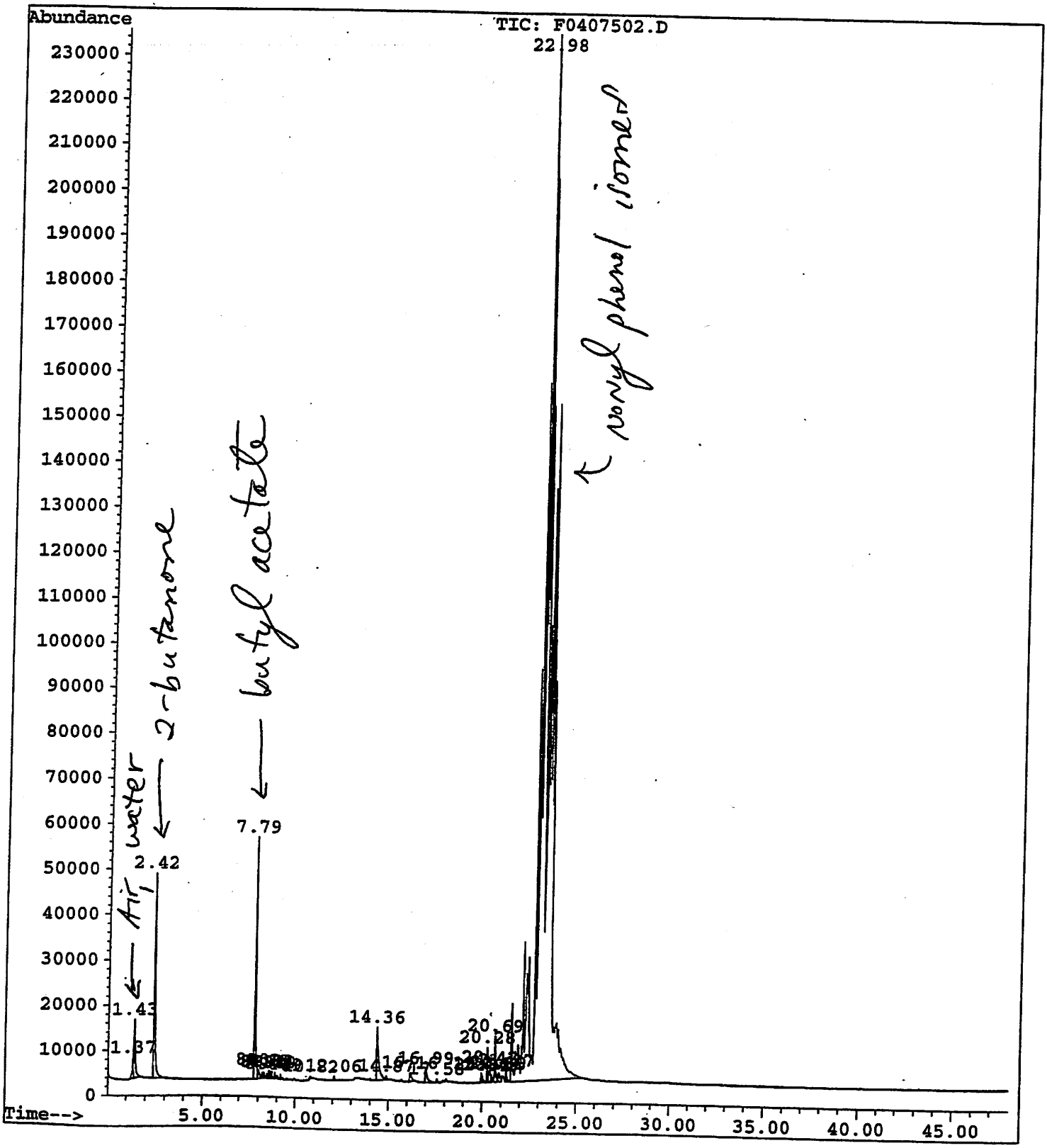
SUBJECT: Thermal desorption of cat. arocy m-30

The volatiles produced from cat. arocy m-30 were analyzed using thermal desorption GC/MS/IR. The sample was heated at 110°C for 10 minutes under a flow of helium with the released volatiles cryogenically trapped for later GC analysis. The GC/MS was operated in true total ion mode so that the amount of the volatiles could be determined. The IR detector was used to identify the volatiles that were observed. The GC/MS total ion chromatogram is enclosed. The identified volatiles are indicated on the TIC. The enclosed spreadsheet lists the amounts of each of the volatiles. The total volatiles were 344 w/w ppm with the majority of the volatiles being due to nonyl phenol.

If you have any questions please give me a call at x3950.


GORE-TEX is a trademark of W. L. Gore & Associates, Inc.

File : C:\HPCHEM\1\DATA\F0407502.D
Operator :
Acquired : 7 Apr 95 2:45 pm using AcqMethod AT400TTI
Instrument : Elk Mills
Sample Name: 19.79mg cat aroly m-30|110[10]-30/350[20]
Misc Info : atd400 split 1:10 35[5]-10-275[20] HP-5 .32
Vial Number: 100



| TIC: F0407502.D | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 19.79mg cat aroly m-30[110[10]-30/350[20] | | | | | | rf=7ug n-c12/68172103 area counts | | | | |
| | | | | | | | | | | |
| Peak# | Ret Time | Type | Width | Area | Start Time | End Time | | ppm | | |
| 1 | 1.375 | BV | 0.05 | 159212 | 1.066 | 1.39 | | | | |
| 2 | 1.428 | VB | 0.065 | 605235 | 1.39 | 1.734 | | | | |
| 3 | 2.424 | VB | 0.063 | 1948644 | 2.367 | 2.946 | | 10.11063 | MEK | |
| 4 | 7.79 | BV | 0.046 | 1695256 | 7.685 | 7.988 | | 8.795911 | butyl acetate | |
| 5 | 8.023 | VV | 0.069 | 97882 | 7.988 | 8.117 | | 0.507865 | | |
| 6 | 8.235 | VV | 0.048 | 42924 | 8.192 | 8.27 | | 0.222713 | | |
| 7 | 8.307 | VB | 0.056 | 50396 | 8.27 | 8.417 | | 0.261482 | | |
| 8 | 8.47 | BV | 0.042 | 26441 | 8.421 | 8.523 | | 0.13719 | | |
| 9 | 8.568 | VV | 0.041 | 46071 | 8.523 | 8.611 | | 0.239041 | | |
| 10 | 8.656 | VV | 0.051 | 52806 | 8.611 | 8.695 | | 0.273986 | | |
| 11 | 8.738 | VB | 0.052 | 54936 | 8.695 | 8.83 | | 0.285038 | | |
| 12 | 8.886 | BV | 0.042 | 38820 | 8.838 | 8.94 | | 0.201419 | | |
| 13 | 9.189 | VV | 0.042 | 29989 | 9.145 | 9.259 | | 0.155599 | | |
| 14 | 10.815 | BV | 0.008 | 343.45 | 10.525 | 10.903 | | 0.001782 | | |
| 15 | 12.064 | BB | 0.032 | 19318 | 11.953 | 12.111 | | 0.100232 | | |
| 16 | 14.356 | BV | 0.094 | 835685 | 14.262 | 14.82 | | 4.335989 | | |
| 17 | 14.869 | VB | 0.039 | 20770 | 14.82 | 14.946 | | 0.107766 | | |
| 18 | 16.162 | BV | 0.081 | 114730 | 16.059 | 16.374 | | 0.595282 | | |
| 19 | 16.986 | BB | 0.097 | 225524 | 16.878 | 17.377 | | 1.170141 | | |
| 20 | 17.58 | BB | 0.034 | 17383 | 17.499 | 17.656 | | 0.090192 | | |
| 21 | 19.963 | BV | 0.036 | 50648 | 19.91 | 19.987 | | 0.262789 | | |
| 22 | 20.007 | VV | 0.039 | 46348 | 19.987 | 20.052 | | 0.240479 | | |
| 23 | 20.275 | VV | 0.045 | 240150 | 20.147 | 20.345 | | 1.246029 | | |
| 24 | 20.419 | VV | 0.064 | 156907 | 20.345 | 20.467 | | 0.814119 | | |
| 25 | 20.486 | VV | 0.045 | 49975 | 20.467 | 20.547 | | 0.259298 | | |
| 26 | 20.692 | VV | 0.047 | 331679 | 20.646 | 20.812 | | 1.720931 | | |
| 27 | 20.852 | VV | 0.035 | 40425 | 20.812 | 20.865 | | 0.209747 | | |
| 28 | 20.887 | VV | 0.074 | 116674 | 20.865 | 21.015 | | 0.605368 | | |
| 29 | 21.271 | VB | 0.064 | 90655 | 21.224 | 21.452 | | 0.470368 | | |
| 30 | 22.975 | M | 0.433 | 60042183 | 21.48 | 25.23 | | 311.5315 | nonyl phenol isomers | |
| | | | | | | | | 0 | | |
| sum less air,water | | | | 66483562 | | | | 344.9529 | | |

STATE OF MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Office of Environmental Programs
Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

GS1 COATING LINE

ASSUMPTIONS:

LINE SPEED = 120 ft/min = 40 yd/min

SUBSTRATE WIDTH = 36" = 1 yd

LAYDOWN (COATING) = 19 g/yd²

RUN TEMP = 110-120°C

PROJECTED OPERATION: 1 SHIFT/DAY (8 HRS), 5 DAYS/WK, 48.5 WKS/YR

DESIGN CONDITION: 3 SHIFTS/DAY (24 HRS) " "

STACK INFORMATION: EF2 (MAIN EXHAUST)

8300 acfm / 7225 scfm

HEIGHT = 15.24 m (50')

HT ABOVE BLDG = 7.62 m (25')

BLDG HT = 7.62 m (25')

BLDG DIMEN = 38.10 m × 15.24 m (125' × 50')

DIST. TO PROP. LINE = 45.72 m / 213 m (150' / 700')

ID = 0.36 m (14")

EXIT VELOCITY = 39.44 m/s (7764 fpm)

EXIT TEMP = 353 K (80°C) → COATING

298 K (25°C) → CLEANING

Office of Environmental Programs
Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

OLD

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

CALCULATIONS:

(A) COATING: AREA SPEED = LINE SPEED × FILM WIDTH = $\frac{40\,yd}{min} \Big| \frac{1\,yd}{} = 40\,yd^2/min$

RATE OF COATING PROCESSED = AREA SPEED × LAYDOWN = $\frac{40\,yd^2}{min} \Big| \frac{19\,g}{yd^2} \Big| \frac{min}{60\,sec} = 12.7\,g/sec$

(= 101 lb/hr)

ANNUAL USE (DESIGN) = $\frac{101\,lb}{hr} \Big| \frac{24\,hrs}{day} \Big| \frac{7\,days}{wk} \Big| \frac{48.5\,wks}{yr} \Big| \frac{5\times10^{-4}\,ton}{lb} = 411\,tons/yr$

" " (PROJECTED) = $\frac{101}{} \Big| \frac{8}{} \Big| \frac{5}{} \Big| \frac{48.5}{} \Big| \frac{5\times10^{-4}}{} = 98\,tons/yr$

| COATING CONTAINS: | | |
|---|---|---|
| | 95-100% Arocy M-30 Cyanate Resin | Non-Volatile |
| | 2% Nonylphenol | Volatile * |
| | 0-1% Cobaltic Acetylacetonate | Solid |

∴ VOC EMISSIONS: NONYLPHENOL

RATE* = (12.7 g/s)(0.02) = 0.254 g/sec

| | ANNUAL USE | |
|---|---|---|
| | DESIGN | PROJ. |
| 2.01 lb/hr | 8.2 tons/yr | 1.9 tons/yr |

× 8 = 16 lb/day NP

(17.2 lb/hr)(1/2 hr) = 8.5 lb/day

SCREENING LEVEL:

ORAL-RAT $LD_{50}$ = 1620 mg/kg

$C_{SL}$ = (1620 mg/kg)(4.1 × 10⁻⁵) = 0.066 mg/m³

$C_{SL}$ = 66 µg/m³

Office of Environmental Programs
Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

NEW

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

CALCULATIONS:

(A) COATING: AREA SPEED = LINE SPEED × FILM WIDTH = $\frac{40\,yd}{min} \Big| \frac{1\,yd}{} = 40\,yd^2/min$

RATE OF COATING PROCESSED = AREA SPEED × LAYDOWN = $\frac{40\,yd^2}{min} \Big| \frac{1.79}{yd^2} \Big| \frac{min}{60\,sec} = 12.7\,g/sec$

(= 101 lb/hr)

ANNUAL USE (DESIGN) = $\frac{101\,lb}{hr} \Big| \frac{24\,hrs}{day} \Big| \frac{7\,days}{wk} \Big| \frac{48.5\,wks}{yr} \Big| \frac{5\times10^{-4}\,ton}{lb} = 411\,tons/yr$

" " (PROJECTED) = $\frac{101}{} \Big| \frac{8}{} \Big| \frac{5}{} \Big| \frac{48.5}{} \Big| \frac{5\times10^{-4}}{} = 98\,tons/yr$

| | | |
|---|---|---|
| COATING CONTAINS: | 95-100% Arocy M-30 Cyanate Resin | Non-Volatile |
| | 2% Nonylphenol | Volatile * |
| | 0-1% Cobaltic Acetylacetonate | Solid |

$\boxed{\therefore \text{VOC EMISSIONS} = \text{NONYLPHENOL}}$

FROM THERMAL DESORPTION GS/MS/IR RESULTS (See Attached):

TOTAL VOLATILES = 344 w/w ppm (nonylphenol)

$\therefore$ RATE = $(12.7\,g/s)\left(\frac{344\,parts\ NP}{1\times10^6\,parts\ resin}\right) = \boxed{0.0044\,g/s \text{ NONYLPHENOL}} \Rightarrow$

| Annual Use | | |
|---|---|---|
| | DESIGN | PROJ |
| 0.035 lb/hr | 0.14 tons/yr | 0.034 tons/yr |

SCREENING LEVEL:

ORAL-RAT $LD_{50}$ = 1620 mg/kg

$C_{SL} = (1620)(4.1\times10^{-5}) = 0.066\,mg/m^3$

$\boxed{C_{SL} = 66\,\mu g/m^3}$

Office of Environmental Programs
Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

SUMMARY

| VOC'S | (lb/hr) EMISSION RATE | ANNUAL USE (tons/yr) PROJECTED | DESIGN | (µg/m³) CONCENTRATION | (µg/m³) CSL | (Y/N) EXEMPT |
|---|---|---|---|---|---|---|
| NONYLPHENOL | 0.035 | 0.034 | 0.14 | 0.3683 | 66 | Y |
| NMP | 17.2 | 1.0 | 4.4 | 184.2 | 4,000 | Y |
| TOTAL | (1) | 2.9 | 126 | | | |

(1) GREATER OF 2 RATES SINCE WE WILL EITHER BE COATING OR CLEANING

# Screening Analyses

04-13-95
15:15:47

*** SCREEN-1.1 MODEL RUN ***
*** VERSION DATED 88300 ***

GS1 LINE - NONYLPHENOL EMISSIONS

SIMPLE TERRAIN INPUTS:

| | | |
|---|---|---|
| SOURCE TYPE | = | POINT |
| EMISSION RATE (G/S) | = | .4400E-02 |
| STACK HEIGHT (M) | = | 15.24 |
| STK INSIDE DIAM (M) | = | .36 |
| STK EXIT VELOCITY (M/S) | = | 39.44 |
| STK GAS EXIT TEMP (K) | = | 353.00 |
| AMBIENT AIR TEMP (K) | = | 293.00 |
| RECEPTOR HEIGHT (M) | = | 2.00 |
| IOPT (1=URB,2=RUR) | = | 1 |
| BUILDING HEIGHT (M) | = | 7.62 |
| MIN HORIZ BLDG DIM (M) | = | 15.24 |
| MAX HORIZ BLDG DIM (M) | = | 38.10 |

BUOY. FLUX = 2.13 M**4/S**3; MOM. FLUX = 41.83 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 46. | .2091 | 2 | 5.0 | 5.3 | 1600.0 | 23.2 | 14.7 | 11.5 | NO |
| 100. | .3680 | 3 | 3.0 | 3.3 | 960.0 | 28.3 | 21.9 | 20.3 | NO |
| 200. | .3371 | 4 | 2.0 | 2.2 | 640.0 | 34.4 | 31.3 | 27.7 | NO |
| MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 46. M: | | | | | | | | | |
| 98. | .3683 | 3 | 3.0 | 3.3 | 960.0 | 28.3 | 21.7 | 20.1 | NO |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**********
* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
* SIMPLE ELEVATED TERRAIN PROCEDURE *
**********

| TERRAIN HT (M) | DISTANCE RANGE (M) MINIMUM | MAXIMUM |
|---|---|---|
| 0. | 46. | 213. |

*** CAVITY CALCULATION - 1 ***
CONC (UG/M**3) = .0000

*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = .0000

| | | | | | |
|---|---|---|---|---|---|
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 8.53 | CAVITY HT (M) | = | 7.64 |
| CAVITY LENGTH (M) | = | 29.63 | CAVITY LENGTH (M) | = | 17.78 |
| ALONGWIND DIM (M) | = | 15.24 | ALONGWIND DIM (M) | = | 38.10 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | .3683 | 98. | 0. |

$C_{SL}$(NONYLPHENOL) = 66 ug/m3

∴ EXEMPT

```
*****************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
*****************************************************
```

GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.

1320 APPLETON ROAD • P.O. BOX 1320 • ELKTON, MARYLAND 21922-1320
PHONE: 410/392-3800 • FAX: 410/996-3805

AIR AND RADIATION MANAGEMENT ADMINISTRATION
MAR 7 1995

February 28, 1995

Maryland Air Management Administration
2500 Broening Highway
Baltimore, MD 21224

Attention: Ms. Marcelina Gurley

re: W. L. Gore & Associates, Inc.
Elk Mills I Site, Premise #0101

Dear Ms. Gurley:

Attached are the completed materials relevant to applying for a permit to construct for a full-width coating line. This coater was previously in use at W.L. Gore & Associates' Elk Creek I facility(Pemise #07-0087) located at 295 Blue Ball Road, Elkton, MD. While this coater was in use, it operated under Permit No. 6-0023.

A description of the process is as follows. A small quantity of coating(i.e., resin) is poured into a trough which is located adjacent to one of the rolls. The rolls are heated, internally, with oil through a closed loop recirculating system. The coating is layed down onto an inert substrate which is eventually 'married' to release paper. After each run, the rolls are cleaned with approximately two gallons of cleaning solvent for 30 minutes. Of this quantity of solvent, half is evaporated and half is collected and disposed of as liquid waste. Thus, the emissions for this operation include one of the raw materials which go into making up the coating and the cleaning solvent.

Please notify me at (410)996-3819 if you have any questions regarding the enclosed permit application as we would like to expedite the permitting process. As always, thank you for your timely handling of this application.

Sincerely,

Linda L. Farrell

Linda L. Farrell
Associate

/llf
Attachments


GORE-TEX is a trademark of W. L. Gore & Associates, Inc.

Air Management Administration
2500 Broening Highway
Baltimore, Maryland 21224
(301) 631-3230

TRANSMITTAL SHEET

Application is hereby made to the Department of the Environment for a Permit to Construct for the following installation(s) as required by the State of Maryland Air Quality Regulation, COMAR 26.11.02.03.

Installation(s)

The following information, as checked below, is submitted as part of our application:

* x Fully completed application form(s)
* ___ Vendor proposals/quotations
* ___ Vendor guarantees
* ___ Equipment drawings/literature
* ___ Purchase specifications
* ___ Equipment layout drawings with emission points
* ___ Process flow diagrams
___ Material balance data
x Regional and site topography maps
x Distances to residential areas
x Physical dimensions of building housing installation(s)
___ Location and size(s) of other nearby buildings/structures *NONE
* x Evidence of Workman's Compensation Insurance
___ Survey of background levels of fluorides
x Material Safety Data Sheets (MSDS) for all materials used

* If applying for a control device alone, only starred items are required.

LOCATION OF INSTALLATION(S)

COMPANY: W. L. Gore & Associates, Inc.

ADDRESS: _____

CITY/ZIP: _____

NAME: W. L. Gore - Elk Mill I Site

ADDRESS: 1320 Appleton Road

CITY/ZIP: Elkton, MD 21921

SIGNED: Linda L. Farrell

DATE: 3-2-95

AMA-9 (Revised 1/89)

W. L. Gore & Associates, Inc. (Premises #07-0101)
PTC #07-6-0108

Teflon coating (circuit boards)

Applicable regulation: COMAR 26.11.06.06.B.02(c). VOC emissions are limited to 20 lbs/day.

Operating schedule, normal: 8 h/d, 5 d/w, 48.5 w/y, 1940 h/yr

Operating schedule, potential: 24 h/d, 7 d/w, 340 d/y, 8160 h/y

Emission Rate:

Coating: 0.035 lbs/hr, Cleaning: 8.6 lbs per 1/2 hour (cleaning is done once or twice/day for 1/2 hour each time.)

Actual Emissions, coating:

0.035 lbs/hr x 8 hrs/day = 0.28 lbs/day
0.035 lbs/hr x 1940 hrs/day = 68 lbs/yr = 0.14 tpy

Actual Emissions, cleaning:

8.6 lbs/day
8.6 lbs/day x 5 days/wk x 48.5 wks/yr = 2086 lbs/yr = 1.04 tpy

Actual Emissions, total:

8.9 lbs/day, 1.18 tpy

Potential Emissions, coating:

0.035 lbs/hr x 24 hrs/day = 0.84 lbs/day
0.035 lbs/hr x 8160 hrs/yr = 285.6 lbs/yr = 0.14 tpy

Potential Emissions, cleaning:

17.2 lbs/day
17.2 lbs/day x 340 days/yr = 5848 lbs/yr = 2.92 tpy

Potential Emissions, total:

18.0 lbs/day, 3.06 tpy

T-BACT: T-BACT is limiting emissions to 20 lbs/day.

# Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

**This is to Certify that**

W. L. GORE & ASSOCIATES, INC.
295 BLUE BALL ROAD
ELKTON, MD 21921

← Name and address of Insured.

LIBERTY MUTUAL

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP. DATE<br>* ☐ CONTINUOUS<br>☐ EXTENDED<br>☒ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| **WORKERS COMPENSATION** | 3/31/95 | *WA1-13D-046681-014 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: AL,CO,CT,DE,FL,GA,IL IN,IA,KY,MD,MI,MO,NJ NH,NY,NC,PA,TN,TX,UT VA | **EMPLOYERS LIABILITY**<br>Bodily Injury By Accident<br>*$100,000.<br>$500,000. Each Accident |
| | 3/31/95 | *WA1-13D-046681-174 | AZ | Bodily Injury By Disease<br>*$500,000.<br>$500,000. Policy Limit |
| | 3/31/95 | WC1-131-046681-074 | CA | Bodily Injury By Disease<br>*$100,000.<br>$500,000. Each Person |
| | 3/31/95 | *WC1-131-046681-164 | MA,OK,OR,WI,MN | |
| **GENERAL LIABILITY**<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate - Other than Products/Completed Operations | |
| | | | Products/Completed Operations Aggregate | |
| | | | Bodily Injury and Property Damage Liability | Per Occurrence |
| | | | Personal and Advertising Injury | Per Person/ Organization |
| | | | Other | Other |
| **AUTOMOBILE LIABILITY**<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | | Each Accident - Single Limit B.I. and P.D. Combined |
| | | | | Each Person |
| | | | | Each Accident or Occurrence |
| | | | | Each Accident or Occurrence |
| THER | | | | |

ADDITIONAL COMMENTS

WA POLICY INCLUDES DEDUCTIBLE ENDORSEMENT WITH $1,000,000. DEDUCTIBLE PER OCCURRENCE/CLAIMS (DISEASE) WITH THE PROVISION THAT LIBERTY MUTUAL WILL (MAY) ADVANCE PAYMENT OF THE DEDUCTIBLE AMOUNT.

RE: MICHAEL WASS - SUPPORT

If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

PECIAL NOTICE-OHIO: ANY PERSON WHO, WITH INTENT TO DEFRAUD OR KNOWING THAT HE IS FACILITATING A FRAUD AGAINST AN INSURER, SUBMITS N APPLICATION OR FILES A CLAIM CONTAINING A FALSE OR DECEPTIVE STATEMENT IS GUILTY OF INSURANCE FRAUD.

OTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE HE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED NDER THE ABOVE POLICIES UNTIL AT LEAST XX DAYS

OTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

RTIFICATE LDER

Liberty Mutual Insurance Group

Lora M. Dewees

LORA M. DEWEES
AUTHORIZED REPRESENTATIVE

WILM.,DE/NG 302-478-9600 1/27/95
OFFICE PHONE NUMBER DATE ISSUED

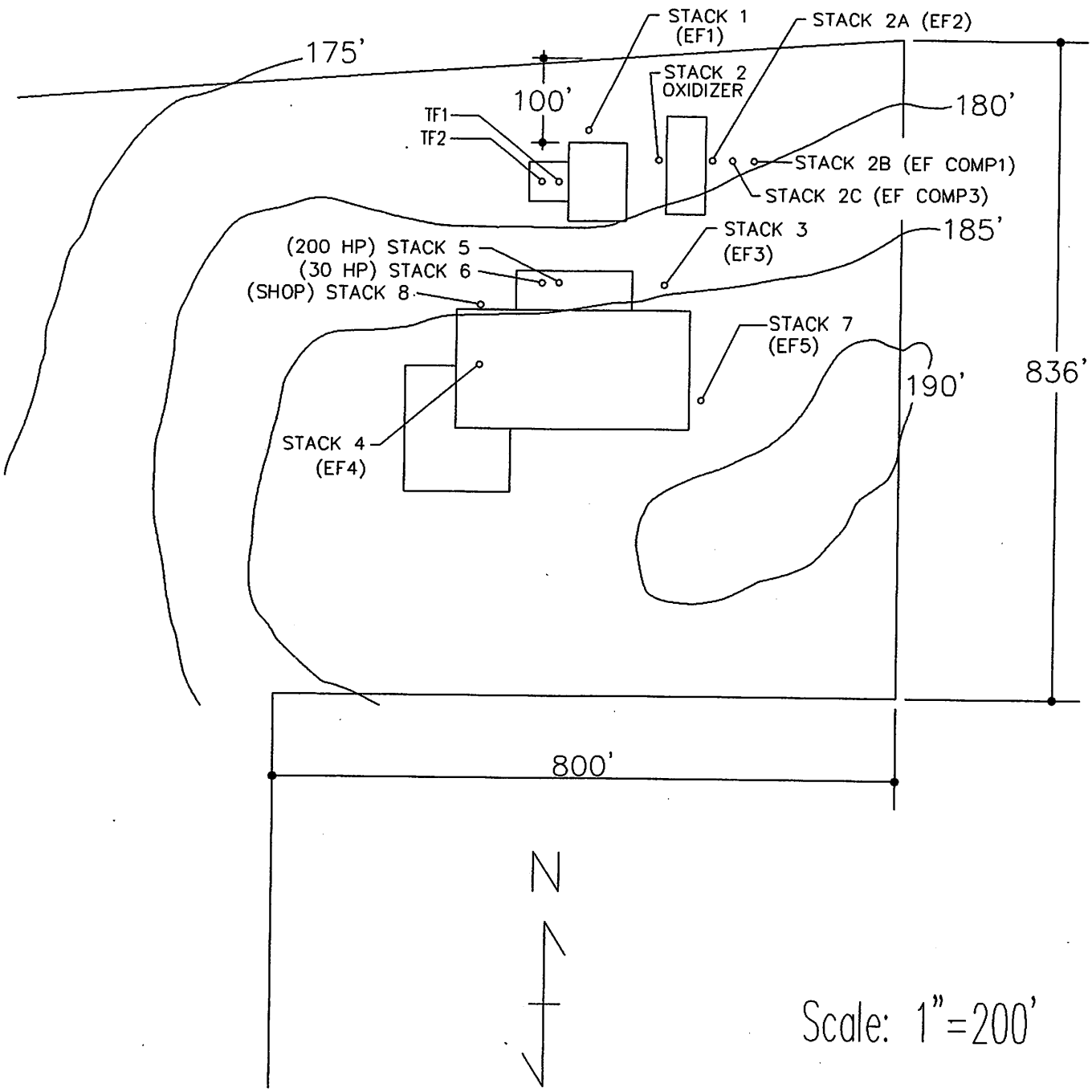
s certificate is e:

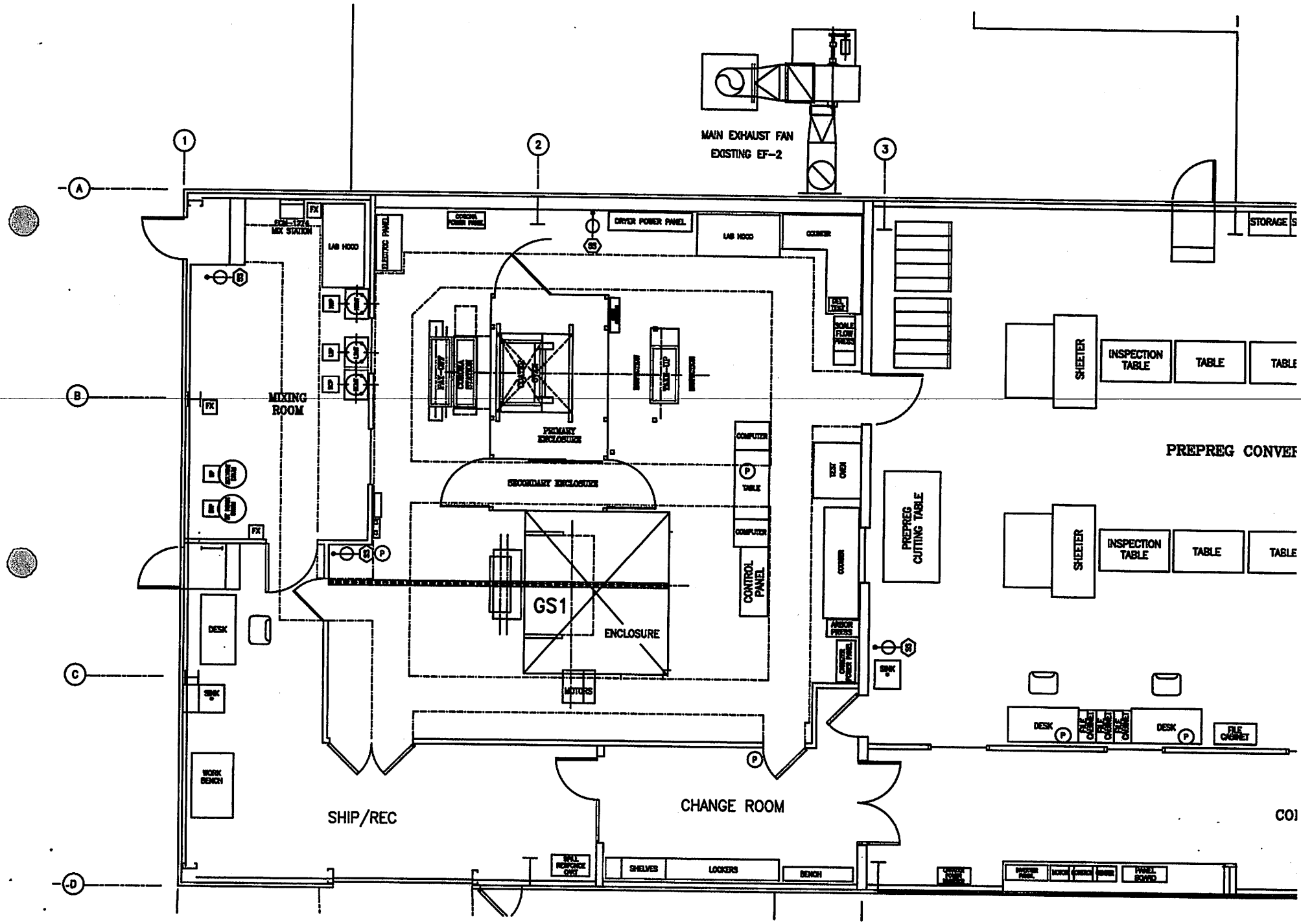
as is afforded by Those Companies

# Site Plan

## ELK MILLS I

## Emissions Discharge Locations





MAIN EXHAUST FAN
EXISTING EF-2
MIXING ROOM
LAB HOOD
ELECTRIC PANEL
CORONA POWER PANEL
DRYER POWER PANEL
LAB HOOD
COOLER
STORAGE
SHEETER
INSPECTION TABLE
TABLE
PREPREG CONVER
PRIMARY ENCLOSURE
SECONDARY ENCLOSURE
COMPUTER
TABLE
COMPUTER
CONTROL PANEL
PREPREG CUTTING TABLE
GS1
ENCLOSURE
MOTORS
DESK
SINK
WORK BENCH
SHIP/REC
CHANGE ROOM
SHELVES
LOCKERS
BENCH
PANEL BOARD
FILE CABINET

ATTACHMENT 1(Refer to Form 5A)

**1. Summary of T-Bact**

T-Bact: Emission Reduction Calculation

We propose to enclose the coating section of this line in a small ventilated enclosure thereby using dilution ventilation to reduce the emission of TAP's out the stack. The calculations are as follows:

| TAP | V.P. @ room T(mmHg) | MW |
|---|---|---|
| Nonylphenol(NP) | $2.11 \times 10^{-4}$ | 220 |
| NMP | 0.29 | 99 |

1. Calculate the saturated vapor concentration of the TAP at room T:
   SVC,ppm = V.P./Barometric Press*$10^6$
   $SVC_{NP}$ = 0.28 ppm
   $SVC_{NMP}$ = 381.6 ppm

2. Convert the concentration(ppm) to (mg/m$^3$):
   Conc(mg/m$^3$) = [conc(ppm)*MW]/[0.082*T(K)]
   $Conc_{NP}$ = 2.52 mg/m$^3$
   $Conc_{NMP}$ = 1546 mg/m$^3$

3. Determine the volume of the enclosure:
   V = [width*depth*height]/(35.3ft$^3$/m$^3$)
   V = [11.7ft*10.4ft*8ft]/(35.3 ft$^3$/m$^3$)
   V = 27.6 m$^3$

4. Calculate the air changes per hour:
   N = [[Q(cfm)/(35.3 ft$^3$/m$^3$)]*60min/hr]/V(m$^3$)
   N = [(2000/35.3)*60]/27.6
   N = 123 changes/hour

5. Calculate the total quantity of dilution air per hour:
   Dilution Air/hr = 27.6 m$^3$ * 123 changes/hour
   Dilution Air/hr = 3,395 m$^3$/hr

6. Calculate total losses:
   Quantity Released = Conc(mg/m$^3$)*Dilution Air/hour*(g/1000 mg)*(lb/454 g)
   $Emission_{NP}$ = 0.019 lb/hour
   $Emission_{NMP}$ = 11.6 lb/hour

ATTACHMENT 1 (CONT)

7. Calculate reduction in emissions due to dilution air:
   From Supplemental Data Sheets:
   Emission $_{NP}$ = 2.01 lb/hour
   Emission$_{NMP}$ = 17.2 lb/hour

   (% Reduction)$_{NP}$ = (2.01-0.019)/2.01*100 = 99.05%
   (%Reduction)$_{NMP}$ = (17.2 - 11.6)/17.2*100 = 32.6%

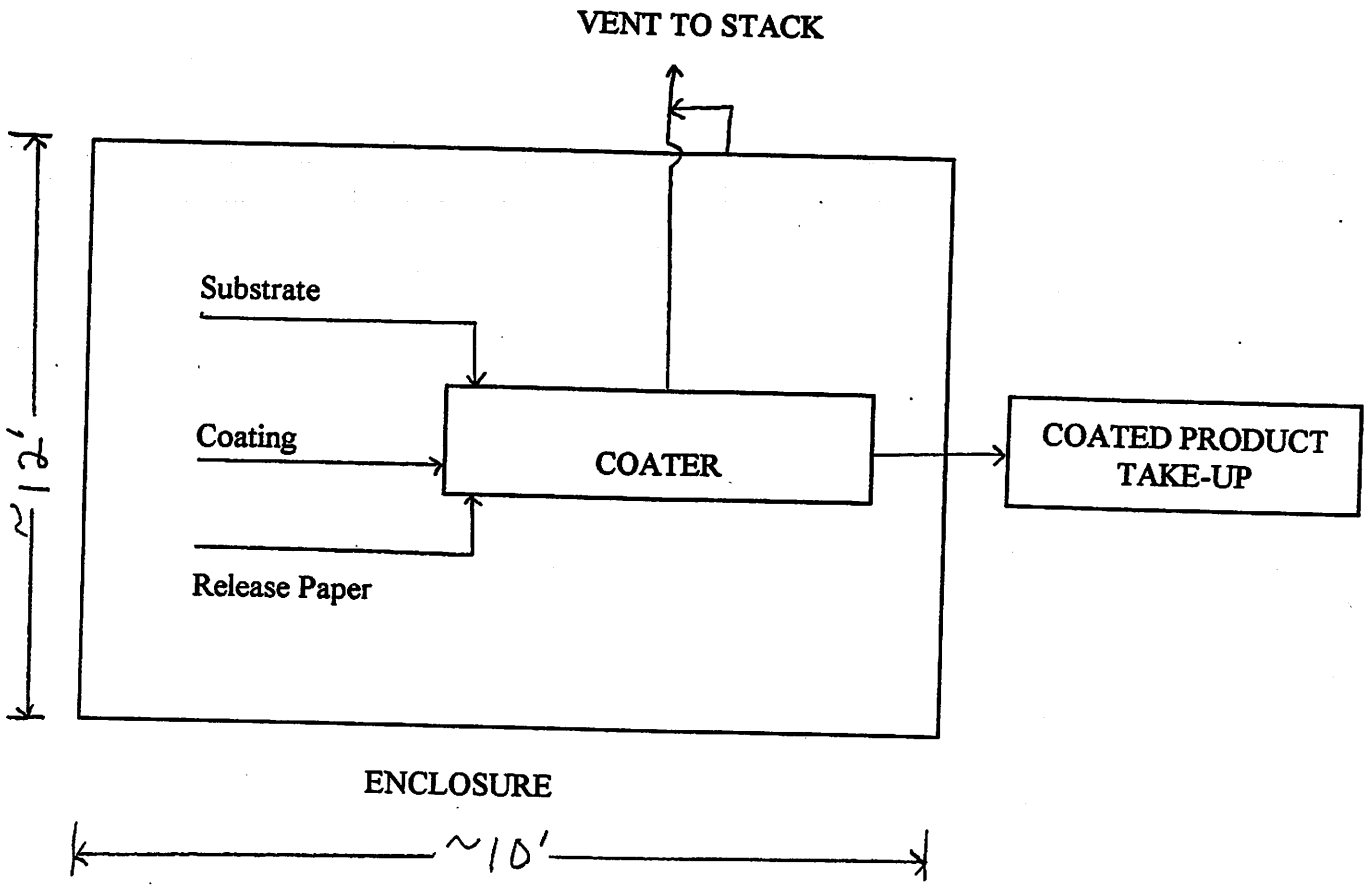
**2. Emission Reduction Option**

In our opinion, by enclosing the coating section of this line in a ventilated enclosure and diluting the vapors prior to discharge out the stack, we have achieved the T-Bact for this process. The emissions for this system are reduced by 99% for the actual coating operation and by 33% for the cleaning operation. Furthermore, based on the projected operating schedule for this process (coating: 8 hrs/day, 5 days/wk; cleaning: 30 minutes/day, 5 days/week), we believe that the emissions are so small in magnitude that they pose little or no potential of causing air polllution.

This is not a T-BACT demonstration. CJE 6-5-95

Also, Emissions are not reduced

GS1 LINE BLOCK DIAGRAM



STATE OF MARYLAND-DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Office of Environmental Programs

Air Management Administration

2500 Broening Highway

Baltimore, MD 21224

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTR

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

GS1 COATING LINE

ASSUMPTIONS:

LINE SPEED = 120 ft/min = 40 yd/min

SUBSTRATE WIDTH = 36" = 1 yd

LAYDOWN (COATING) = 19 g/yd²

RUN TEMP = 110-120°C

PROJECTED OPERATION: 1 SHIFT/DAY (8 HRS), 5 DAYS/WK, 48.5 WKS/YR

DESIGN CONDITION: 3 SHIFTS/DAY (24 HRS) " "

STACK INFORMATION: EF2 (MAIN EXHAUST)

8300 acfm / 7225 scfm

HEIGHT = 15.24 m (50')

HT ABOVE BLDG = 7.62 m (25')

BLDG HT = 7.62 m (25')

BLDG DIMEN = 38.10 m × 15.24 m (125' × 50')

DIST. TO PROP. LINE = 45.72 m / 213 m (150' / 700')

ID = 0.36 m (14")

EXIT VELOCITY = 39.44 m/s (7764 fpm)

EXIT TEMP = 353 K (80°C) → COATING

298 K (25°C) → CLEANING

STATE OF MARYLAND-DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Office of Environmental Programs

Air Management Administration

2500 Broening Highway

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SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

CALCULATIONS: Replace this page with updated page submitted by W.L. Gore on 4-20-95

(A) COATING: AREA SPEED = LINE SPEED × FILM WIDTH = $\frac{40\,yd}{min} \Big/ \frac{1\,yd}{}$ = 40 yd²/min

RATE OF COATING PROCESSED = AREA SPEED × LAYDOWN = $\frac{40\,yd^2}{min} \Big/ \frac{19\,g}{yd^2} \Big/ \frac{min}{60\,sec}$ = 12.7 g/sec

(= 101 lb/hr)

ANNUAL USE (DESIGN) = $\frac{101\,lb}{hr} \Big/ \frac{24\,hrs}{day} \Big/ \frac{7\,days}{wk} \Big/ \frac{48.5\,wks}{yr} \Big/ \frac{5\times10^{-4}\,ton}{lb}$ = 411 tons/yr

" " (PROJECTED) = $\frac{101}{} \Big/ \frac{8}{} \Big/ \frac{5}{} \Big/ \frac{48.5}{} \Big/ \frac{5\times10^{-4}}{}$ = 98 tons/yr

| COATING CONTAINS: | | |
|---|---|---|
| 95-100% Arocy M-30 Cyanate Resin | Non-Volatile | |
| 2% Nonylphenol | Volatile | * |
| 0-1% Cobaltic Acetylacetonate | Solid | |

∴ VOC EMISSIONS: NONYLPHENOL

RATE* = (12.7 g/s)(0.02) = 0.254 g/sec

| ANNUAL USE | |
|---|---|
| DESIGN | PROJ. |
| 2.01 lb/hr // 8.2 tons/yr | // 1.9 tons/yr |

SCREENING LEVEL:

ORAL-RAT $LD_{50}$ = 1620 mg/kg

$C_{SL}$ = (1620 mg/kg)(4.1 × 10⁻⁵) = 0.066 mg/m³

$C_{SL}$ = 66 μg/m³

STATE OF MARYLAND-DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Office of Environmental Programs

Air Management Administration

2500 Broening Highway

Baltimore, MD 21224

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

| | | |
|---|---|---|
| W.L. GORE & ASSOCIATES, INC. | | |
| 1320 APPLETON RD. P.O. BOX 1320 | | |
| ELKTON | CECIL | 21921 |

CALCULATIONS - CONT'D

(B) CLEANING: NOTE - ROLLS ARE RETURNED TO ROOM TEMP AND CLEANED AFTER EVERY RUN *

ASSUME: 2 gallons NMP (n-methylpyrrilodone) used to clean

Clean rolls for 30 minutes/day

Per telecon with Eric Seward of Gore, When operating 24 h/d, rolls are cleaned only once or twice/day not 3x per day. This prevents emiss from exceeding 20 lbs/day

TOTAL QUANTITY = $\frac{2\ \text{gallons}}{} \Big| \frac{3786\ \text{cm}^3}{\text{gall}} \Big| \frac{1.03\ \text{g}}{\text{cm}^3}$ (Density @ room temp) = 7,799 g NMP

EMISSION RATE = $\frac{7799\ \text{g}}{} \Big| \frac{}{30\ \text{min}} \Big| \frac{\text{min}}{60\ \text{sec}}$ = 4.33 g/sec NMP

NOTE - BASED ON ACTUAL CLEANING OPERATION (as measured in WL Gore EC1 facility)

50% DISPOSED OF AS LIQUID WASTE

50% EVAPORATES

↳ NOTE - LINE BEING RELOCATED

∴ VOC EMISSIONS: NMP

RATE = (4.33 g/sec)(0.5) (% Evaporates) = 2.2 g/sec = 17.2 lb/hr

ANNUAL USAGE (DESIGN) = $\frac{17.2\ \text{lb}}{\text{hr}} \Big| \frac{\text{hr}}{60\ \text{min}} \Big| \frac{30\ \text{min}}{\text{shift}} \Big| \frac{3\ \text{shifts}}{\text{day}} \Big| \frac{7\ \text{days}}{\text{wk}} \Big| \frac{48.5\ \text{wks}}{\text{yr}} \Big| \frac{5\times10^{-4}\ \text{tons}}{\text{lb}}$ = 4.4 tons/yr

" " (PROJECTED) = $\frac{17.2}{} \Big| \frac{}{60} \Big| \frac{30}{} \Big| \frac{1}{} \Big| \frac{5}{} \Big| \frac{48.5}{} \Big| \frac{5\times10^{-4}}{}$ = 1.0 tons/yr

SCREENING LEVEL:

TLV-TWA = 400 mg/m³

$C_{SL} = (400/100) \times 1000 = 4{,}000\ \mu g/m^3 = C_{SL}$

STATE OF MARYLAND-DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Office of Environmental Programs

Air Management Administration

2500 Broening Highway

Baltimore, MD 21224

SUPPLEMENTAL DATA SHEET: PERMIT TO CONSTRUCT ☑ OR REGISTRATION ☐

W.L. GORE & ASSOCIATES, INC.

1320 APPLETON RD. P.O. BOX 1320

ELKTON CECIL 21921

SUMMARY Replace this page with updated page submitted by W.L. Gore on 4-20-95

| VOC'S | (lb/hr) EMISSION RATE | ANNUAL USE (tons/yr) PROJECTED | DESIGN | (µg/m³) CONCENTRATION | (µg/m³) CSL | (Y/N) EXEMPT |
|---|---|---|---|---|---|---|
| NONYLPHENOL | 2.01 | 1.9 | 8.2 | 21.26 | 66 | Y |
| NMP | 17.2 | 1.0 | 4.4 | 184.2 | 4,000 | Y |
| TOTAL | (1) | 2.9 | 12.6 | | | |

(1) GREATER OF 2 RATES SINCE WE WILL EITHER BE COATING OR CLEANING

# SCREENING ANALYSES

02-20-95
14:09:09

*** SCREEN-1.1 MODEL RUN ***
*** VERSION DATED 88300 ***

GS1 LINE - NONYLPHENOL EMISSIONS

Replace this page with updated page submitted by W.L. Gore on 4-20-95

SIMPLE TERRAIN INPUTS:

| | | |
|---|---|---|
| SOURCE TYPE | = | POINT |
| EMISSION RATE (G/S) | = | .2540 |
| STACK HEIGHT (M) | = | 15.24 |
| STK INSIDE DIAM (M) | = | .36 |
| STK EXIT VELOCITY (M/S) | = | 39.44 |
| STK GAS EXIT TEMP (K) | = | 353.00 |
| AMBIENT AIR TEMP (K) | = | 293.00 |
| RECEPTOR HEIGHT (M) | = | 2.00 |
| IOPT (1=URB,2=RUR) | = | 1 |
| BUILDING HEIGHT (M) | = | 7.62 |
| MIN HORIZ BLDG DIM (M) | = | 15.24 |
| MAX HORIZ BLDG DIM (M) | = | 38.10 |

BUOY. FLUX = 2.13 M**4/S**3; MOM. FLUX = 41.83 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 46. | 12.07 | 2 | 5.0 | 5.3 | 1600.0 | 23.2 | 14.7 | 11.5 | NO |
| 100. | 21.25 | 3 | 3.0 | 3.3 | 960.0 | 28.3 | 21.9 | 20.3 | NO |
| 200. | 19.46 | 4 | 2.0 | 2.2 | 640.0 | 34.4 | 31.3 | 27.7 | NO |
| MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 46. M: | | | | | | | | | |
| 98. | 21.26 | 3 | 3.0 | 3.3 | 960.0 | 28.3 | 21.7 | 20.1 | NO |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**********
* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
* SIMPLE ELEVATED TERRAIN PROCEDURE *
**********

| TERRAIN HT (M) | DISTANCE RANGE (M) MINIMUM | MAXIMUM |
|---|---|---|
| 0. | 46. | 213. |

*** CAVITY CALCULATION - 1 ***
CONC (UG/M**3) = .0000

*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = .0000

| | | | | | |
|---|---|---|---|---|---|
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 8.53 | CAVITY HT (M) | = | 7.64 |
| CAVITY LENGTH (M) | = | 29.63 | CAVITY LENGTH (M) | = | 17.78 |
| ALONGWIND DIM (M) | = | 15.24 | ALONGWIND DIM (M) | = | 38.10 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

**********
*** SUMMARY OF SCREEN MODEL RESULTS ***
**********

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 21.26 | 98. | 0. |

$C_{SL}$ = 606 ug/m³
∴ EXEMPT

**********
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**********

Replace this page with updated page
Submitted by W.L. Gore on 4-20-95

02-28-95
14:41:50

*** SCREEN-1.1 MODEL RUN ***
*** VERSION DATED 88300 ***

GS1 LINE - CLEANING PROCESS - NMP EMISSIONS

SIMPLE TERRAIN INPUTS:

| | | |
|---|---|---|
| SOURCE TYPE | = | POINT |
| EMISSION RATE (G/S) | = | 2.200 |
| STACK HEIGHT (M) | = | 15.24 |
| STK INSIDE DIAM (M) | = | .36 |
| STK EXIT VELOCITY (M/S) | = | 39.44 |
| STK GAS EXIT TEMP (K) | = | 298.00 |
| AMBIENT AIR TEMP (K) | = | 293.00 |
| RECEPTOR HEIGHT (M) | = | 2.00 |
| IOPT (1=URB,2=RUR) | = | 1 |
| BUILDING HEIGHT (M) | = | 7.62 |
| MIN HORIZ BLDG DIM (M) | = | 15.24 |
| MAX HORIZ BLDG DIM (M) | = | 38.10 |

BUOY. FLUX = .21 M**4/S**3; MOM. FLUX = 49.55 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 46. | 104.5 | 2 | 5.0 | 5.3 | 1600.0 | 23.2 | 14.7 | 11.5 | NO |
| 100. | 184.0 | 3 | 3.0 | 3.3 | 960.0 | 28.3 | 21.9 | 20.3 | NO |
| 200. | 168.5 | 4 | 2.0 | 2.2 | 640.0 | 34.4 | 31.3 | 27.7 | NO |
| MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 46. M: | | | | | | | | | |
| 98. | 184.2 | 3 | 3.0 | 3.3 | 960.0 | 28.3 | 21.7 | 20.1 | NO |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**********
* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
* SIMPLE ELEVATED TERRAIN PROCEDURE *
**********

| TERRAIN HT (M) | DISTANCE RANGE (M) MINIMUM | MAXIMUM |
|---|---|---|
| 0. | 46. | 213. |

*** CAVITY CALCULATION - 1 ***
CONC (UG/M**3) = .0000

*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = .0000

| | | | | | |
|---|---|---|---|---|---|
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 8.53 | CAVITY HT (M) | = | 7.64 |
| CAVITY LENGTH (M) | = | 29.63 | CAVITY LENGTH (M) | = | 17.78 |
| ALONGWIND DIM (M) | = | 15.24 | ALONGWIND DIM (M) | = | 38.10 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
*************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
*************************************
```

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 184.2 | 98. | 0. |

$C_{SL}$ = 4,000 µg/m³

∴ EXEMPT

```
**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
```

48

015-00151

Date: 03/27/2013
Premises: #015-51
Registration: #6-0321

**Air Toxics Compliance for digital printers**

**W.L. GORE & ASSOCIATES, INC. – ELK MILLS V**
Company

W.L. Gore and Associates is a worldwide manufacturing corporation with headquarters in Newark, Delaware. Twelve facilities, located in the Elkton, Maryland area, all use fluoropolymer material (FPM) as their primary raw material.

FPM is processed with chemicals to produce products such as GORE-TEX® (patented, trac which is a strong porous film material. GORE-TEX® fibers are chemically inert, resist deteriora are weather durable and can be used over a wide range of temperatures. This versatile FP been developed for use in hundreds of products, which include: wire insulation, surgical patche packing fibers, gasket tape, filter products and garment laminates.

which site
why same addres

Elk Mills V uses wide films of GORE-TEX®, which is produced at various other company pla fabrics and films are received and staged, that is, inspected and categorized by size of roll a fabric. During inspections, fabrics are unwound, inspected, defects removed, rewound, and warehoused until used. This process also takes place with the finished product. Next, the fi laminated to fabrics using adhesives. A durable water repellant (DWR) coating is applied to fabrics to make the fabrics water-repellant. The fabric is dried in direct-fire ovens. The facili following registered equipment:

| ARMA Registration Number | Description | Date of Installation |
|---|---|---|
| 5-0057 thru 5-0060 | Three (3) Burnham natural gas fired boilers, each rated at 14.6 million Btu per hour heat input | 1999 |
| 5-0122 | One (1) Seller Series natural gas fired boiler rated at 1.121 million Btu per hour heat input | 1999 |
| 6-0147 | Coating line (DWR Line #12) equipped with integral drying oven for coating of fabric and emissions controlled by thermal oxidizer | 1998; modified 2006 |
| 6-0170 | Laminating line (#9) | 1999 |
| 6-0188 | Laminating line (#81) with baghouse | 2001, modified 2005 |
| 6-0203 | Welding operation | 2002 |
| 6-0206 | Adhesive process line (ST2) including powder coater with cartridge filter | 2003, modified 2007 |
| 6-0208 | IPA Spray hood for quality testing of PTFE laminates | 2003 |
| 6-0258 | Laminating line #14 (GS3) | 2006 |
| 9-0172 | One (1) Onan diesel fired emergency generator rated at 400 kW. | 1999 |
| 015-0151-6-0321 | One (1) inkjet (digital) printer | 2012 |

W. L. Gore & Associates, Inc. – Elk Mills V proposes to install two (~~3~~ 2) inkjet (digital) printers for a total of three (3) printers to be used to apply solvent based inks onto substrates. Emissions from the printers will be controlled by the regenerative thermal oxidizer permitted with the spray coating process.

| | | Yes | No |
|---|---|---|---|
| 1. | Existing Sources at Premises | -X- | — |
| 2. | Premises wide emissions of TAPs listed in COMAR 26.11.15.12 that would be discharged by proposed source quantified<br>Proposed VOC emission = 5.87 tons/year (based on 98% efficiency of the RTO). | -X- (See permit to construct) | — |
| 3. | Emissions of remaining TAPs from proposed source quantified | -X- | — |
| 4. | Permit to operate for existing process at premises | -X- | — |

Emission Certification Report in tons

| Year | $SO_x$ | $NO_x$ | VOC/HAPs | $PM/PM_{10}$ | CO |
|---|---|---|---|---|---|
| 2011 | 0.026 | 3.331 | 1.79 | 0.24 | 2.725 |
| 2010 | 0.017 | 2.970 | 1.72 | 0.231/0.14 | 2.437 |
| 2009 | 0.029 | 2.937 | 1.62 | 0.227/0.147 | 2.28 |

Permit to Operate expire April 30, 2014 for the Elk Mill V Facility.

| | | | |
|---|---|---|---|
| 5. | Permit to operate required for proposed source | — | -X- |
| 6. | T-BACT Summary | | |
| | A. Exempt | — | -X- |
| | B. The Permittee will use good operating practices and/or vent emissions to the RTO to comply with the T-BACT requirement. | | |

| | | Yes | No |
|---|---|---|---|
| 7. | Ambient Impact Requirement met through: | | |
| | A. COMAR 26.11.15.03 | — | -X- |
| | B. COMAR 26.11.15.07 | — | -X- |
| | C. TM 86-02 | — | -X- |
| | D. EPA's Screen Model | -X- | — |
| | E. ISCST or ISCLT | — | -X- |

8. Toxics' Permit Conditions

1. The Permittee shall maintain records of material usage that will show that allowable emissions for all TAPs have not been exceeded. The Permittee shall keep these records on site for at least five years and shall make the records of material usage available to the Department upon request.

2. The Permittee shall also maintain records of material usage for the existing sources involved in this new source permit to construct.

3. The source shall use all T-BACT options listed in control technology section of this report to meet T-BACT requirements.

| | | Yes | No |
|---|---|---|---|
| 9. | Existing source compliance | | |

| | | |
|---|---|---|
| A. Are there materials listed in 26.11.15.12 that are being discharged from existing sources at the premises | -X- | — |
| B. Is that source(s) existing according to 26.11.15.01(B)(7) and required by the Department to demonstrate compliance with 26.11.15.06 | -X- | — |
| C. Describe compliance status for these materials. | In Compliance | |

M. Marcellina Gurley
Permit Manager

3/27/13
Date

Christopher Wheeling
Compliance Manager

3/27/13
Date

Location: 105 Vieve's Way
Elkton, MD 21921

MMG/CW

Table 1: Emission Rates, Screening Levels and Off-site Concentrations

| TAP | CAS Number | Emission Rate | Screening Levels (ug/m$^3$) | | | Off-site concentrations (ug/m$^3$) | | |
|---|---|---|---|---|---|---|---|---|
| | | Lb/hr | 1-hour | 8-hour | Annual | 1-hour | 8-hour | Annual |
| 2-butoxyethyl acetate | 112-07-2 | 1.06 | None | 1310.43 | None | none | 8.38 | None |
| Propylene glycol methyl ether acetate | 108-65-6 | 0.17 | None | 349.81 | None | none | 1.38 | None |
| Cyclohexanone | 108-94-1 | 0.09 | 2006.95 | 802.81 | None | 1.06 | 0.74 | none |
| Toluene | 108-88-3 | 0.01 | None | 753.62 | None | None | 0.11 | none |

49

GORE
Creative Technologies Worldwide

RECEIVED
MAR 18 2013
By

March 5 2013

Maryland Department of the Environment
Air and Radiation Management Administration
Attention: Ms. Marcellina Gurley
1800 Washington Blvd., Suite 720
Baltimore, MD 21230-1720

RE: Premise Number: 015-0151
Plant Name: Elk Mills V Site
Update to Permit No. 6-0321 - Printing Process

Dear Ms. Gurley:

The purpose of this letter is to provide an updated permit application for the printing process located at the W.L. Gore and Associates, Inc. (Gore) Elk Mills V Site. The process is currently permitted under Permit No. 6-0321. Gore would like to modify the process to add two (2) additional ink jet printers for a total of three (3) printers. The emissions associated with this process and other pertinent information has been included in the enclosed permit application forms.

If you have any questions, please contact me by phone at 410-506-2754 or by email at seggers@wlgore.com.

Sincerely,

Shannon Eggers

Shannon Eggers
Environmental Associate

Enclosures

cc: Corporate EH&S Files, Gore
Elk Mills V EH&S Files, Gore
T. Regester, Gore (electronic copy)
B. Duncan, Gore (electronic copy)
D. Luber, Gore (electronic copy)
O. Potts, Gore (electronic copy)

**W. L. Gore & Associates, Inc.**
**Elk Mills V Site**
105 Vieve's Way
Elkton, MD 21921
Tel 410.392.3700• Fax 410.392.3849
**gore.com**

GORE® and design are trademarks of W. L. Gore & Associates.

24-015-00079

**W. L. GORE & ASSOCIATES, INC.**

2401 SINGERLY ROAD, P.O. BOX 1220• ELKTON, MD 21922-1220
Phone 410-398-6400• Fax 410-398-5752

CORE TECHNOLOGY

December 20, 2012

Director
EPA Region III
Air Protection Division
1650 Arch Street
Philadelphia, PA 19103

RE: **Certification and Notification of Compliance Status with 40 CFR Part 63 Subpart JJJJJJ**

Attached please find the certification for the Certification and Notification of Compliance Status with 40 CFR Part 63 Subpart JJJJJJ. Records are available for review upon request.

If you have any questions, please contact me at (410) 506-2141.

Sincerely,

Keena J. Dautlick
Environmental Associate

RECEIVED
JAN 03 2013
3AP20

cc: S. Hawke
P. Horst
T. Aburn, MDE

GORE AND DESIGN ARE TRADEMARKS OF W. L. GORE & ASSOCIATES, INC.

## SECTION II: CERTIFICATION AND NOTIFICATION OF COMPLIANCE STATUS UNDER THE BOILERS AREA SOURCE NESHAP (§63.11225(a)(4))

***Check the applicable boxes***

1. ☒ This facility complies with the requirements of §63.11214 to conduct an initial tune-up of each boiler.

2. ☒ No secondary materials that are solid waste were combusted in any affected unit.[a]

3. Select one of the following options:

   a. ☐ This facility has had an energy assessment performed according to §63.11214(c).[b]

   b. ☐ I will submit a separate compliance status notification for the energy assessment by July 19, 2014.

   c. ☒ The energy assessment does not apply to my facility.

## SECTION III: FACILITY INFORMATION §63.9(h)(2))

☒ I certify that the information presented herein is true, accurate, and complete to the best of my knowledge.(See 63.9(h)(2)(i)).

Facility Name:___W. L. Gore & Associates_____

Facility Street Address:___2401 Singerly Rd_____

___Elkton_____ _MD_____ _21921_____
City State Zip Code

__kdautlic@wlgore.com_____
Email Address

Name (please print) ____Sally A. Hawke_____

Sally A. Hawke
*Signature*

DATE: 12/20/2012

[a] If your boiler has qualified for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act you do not need to check this box.

[b] You have until July 19, 2014 to certify compliance with the energy assessment requirement if this requirement applies to your facility. If the facility completed an energy assessment on or after January 1, 2008 that meets the requirements in Table 2 of 40 CFR part 63 subpart JJJJJJ, you have satisfied the requirements for the energy assessment and you have the option to certify compliance in this form instead of resubmitting at a later date. If you have not conducted an energy assessment since January 1, 2008 you must do so by March 21, 2014 and re-submit this initial certification of compliance status by July 19, 2014.

24-015-00079

GORE
Creative Technologies Worldwide

**W. L. GORE & ASSOCIATES, INC.**

501 VIEVE'S WAY, P.O. BOX 1320• ELKTON, MD 21922-1320
Phone 410-392-3800• Fax 410-506-3805

CORE TECHNOLOGY/POLYMER PRODUCTS

**CERTIFIED MAIL**

November 24, 2010

RECEIVED
DEC 03 2010
3AI 20

Chief, Air Enforcement Branch (3AT20)
US EPA, Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

RE: W.L.Gore & Associates, Inc, -Elk Mills I, State Permit to Operate Number 015-00101
**Notification of Actual Initial Start-up: PTC#5-0117 to 0119 Three, 10.2 MMBtu/hr, Natural Gas, Cleaver Brooks Boilers (#7, #8, #9)**

Chief, Air Enforcement Branch:

As required by the MDE "Air Quality General Permit to Construct for Medium Fuel burning Equipment, Part IV – Notification, Record Keeping & Reporting, (A)(1)". The permittee must submit notification of the actual initial start-up date to MDE & EPA, within 15 days after the actual start-up date of the equipment. This is to notify you that the actual date of start-up was November 23, 2010.

Below is a table listing the units under construction.

| Construction Date | ID# | Heat Input, Manufacturer | Fuel | Permit # | Permit Issue Date |
|---|---|---|---|---|---|
| Jun 2010 | Boiler #7 | 10.2 MBtu Cleaver Brooks | Natural Gas | 5-0117 | 1/14/2009 |
| Jun 2010 | Boiler #8 | 10.2 MBtu Cleaver Brooks | Natural Gas | 5-0118 | 1/14/2009 |
| Jun 2010 | Boiler #9 | 10.2 MBtu Cleaver Brooks | Natural Gas | 5-0119 | 1/14/2009 |

Please feel free to call me at (410) 506-3627, if you have any questions or concerns.

Sincerely,

Peggy J. Horst

Peggy J. Horst
EM1 Environmental Associate

cc: David Wright, Gore-EM1 (e-copy)
John Miller, Gore-EM1 (e-copy)
Corporate EH&S, Mary Jackson, Gore-EM1
Christopher Wheeling, MDE-Compliance

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GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.

501 VIEVE'S WAY, P.O. BOX 1320• ELKTON, MD 21922-1320
Phone 410-392-3800• Fax 410-506-3805

CORE TECHNOLOGY/POLYMER PRODUCTS

**CERTIFIED MAIL**

November 24, 2010

Christopher Wheeling
The Administrator, Compliance Program
Air and Radiation Administration
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720

RE: W.L.Gore & Associates, Inc, -Elk Mills I, State Permit to Operate Number 015-00101
**Notification of Actual Initial Start-up: PTC#5-0117 to 0119 Three, 10.2 MMBtu/hr, Natural Gas, Cleaver Brooks Boilers (#7, #8, #9)**

Dear Mr. Wheeling:

As required by the MDE "Air Quality General Permit to Construct for Medium Fuel burning Equipment, Part IV – Notification, Record Keeping & Reporting, (A)(1)". The permittee must submit notification of the actual initial start-up date to MDE & EPA, within 15 days after the actual start-up date of the equipment. This is to notify you that the actual date of start-up was November 23, 2010.

Below is a table listing the units under construction.

| Construction Date | ID# | Heat Input, Manufacturer | Fuel | Permit # | Permit Issue Date |
|---|---|---|---|---|---|
| Jun 2010 | Boiler #7 | 10.2 MBtu Cleaver Brooks | Natural Gas | 5-0117 | 1/14/2009 |
| Jun 2010 | Boiler #8 | 10.2 MBtu Cleaver Brooks | Natural Gas | 5-0118 | 1/14/2009 |
| Jun 2010 | Boiler #9 | 10.2 MBtu Cleaver Brooks | Natural Gas | 5-0119 | 1/14/2009 |

Please feel free to call me at (410) 506-3627, if you have any questions or concerns.

Sincerely,

Peggy J. Horst

Peggy J. Horst
EM1 Environmental Associate

cc: David Wright, Gore-EM1 (e-copy)
John Miller, Gore-EM1 (e-copy)
Corporate EH&S, Mary Jackson, Gore-EM1
→Chief, Air Enforcement Branch (3AT20), US EPA, Region 3

GORE AND DESIGN ARE TRADEMARKS OF W. L. GORE & ASSOCIATES, INC.

24-015-00079

015-0079


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

MDE

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary


FEB - 8 2008

RECEIVED

FEB 2 6 2008

ENFORCEMENT ASSOCIATE DIR. (3AP60)

Mr. Steve D. Lishowid
W.L. Gore & Associates, Inc.
2401 Singerly Road
P.O. Box 1220
Elkton MD 21922-1220

Dear: Mr. Lishowid:

Enclosed please find your Permit to Construct for the modification to the existing four (4) boilers to burn used oil and Waste Combustible Fluids located at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the existing boilers that you have proposed to be modified.

The modification of the four (4) existing boilers qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. The Part 70 Permit Application for Minor Modification included in the application package will be added as an amendment to the renewal Part 70 permit application package already in-house.

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/aw

Enclosure

cc: Laramie Daniel with copy of permit
Cecil County Health Department
EPA Region III
Jay Bozman with copy of permit

**KEEP PERMIT AT SITE** **CONTROL NO. B- 01685**

*State of Maryland*

Martin O' Malley
Governor

Shari T. Wilson
Secretary

**DEPARTMENT OF THE ENVIRONMENT**
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-4-0156 DATE ISSUED February 8, 2008

PERMIT FEE $500.00 (PAID) EXPIRATION DATE In accordance with COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS
W.L. Gore & Associates, Inc.
2401 Singerly Road
P.O. Box 1220
Elkton MD 21922-1220
Attn: Mr. Steve D. Lishowid

SITE
Cherry Hill Plant
SAME
CECIL County
Premises# - 0079
AI# 128

SOURCE DESCRIPTION
Modification of Weil-McLain No.2 fuel oil fired boiler (Boiler #1) rated at 4.9 million Btu per hour heat input to include combustion of used oil and waste combustible fluids.

This Permit to Construct supersedes Permit to Construct Number 07-4-0156 issued March 29, 1985.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction and Operating Conditions
Part D – Record Keeping and Reporting

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:

(a) Application for Fuel Burning Equipment (Form 11) received May 6, 1985 and January 15, 2008 request to burn alternate fuels.

(b) Supplemental Information (Emissions calculations, Summary of Sample Results and Report of fuel analysis) received January 15, 2008.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The modification of the No. 2 fuel oil/used oil/waste combustible fluids fired boiler qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.01.07C - Report of Excess Emissions.
"(1) In the case of any occurrence of excess emissions, expected to last or actually lasting for 1 hour or more, from any installation required by COMAR 26.11.02.13 to obtain a State permit to operate, the owner or operator shall report the onset and shall report the termination of the occurrence to the Department by telephone.
(2) Telephone reports of excess emissions shall include the following information:
(a) The identity of the installation and the person reporting;
(b) The nature or characteristics of the emissions (for example, hydrocarbons, fluorides);
(c) The time of occurrence of the onset of the excess emissions and the actual or expected duration of the occurrence; and

(d) The actual or probable cause of the excess emissions."

(b) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.09.05A(1) – Visible Emissions. "A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.09.05A(3) Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period."

(d) COMAR 26.11.09.07A - Control of Sulfur Oxides From Fuel Burning Equipment.
Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

(3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.09.10 - Requirements to Burn Used Oil and Waste Combustible Fluid as Fuel.

A. General Requirements.

"(1) A person who proposes to burn used oil or waste combustible fluid in an installation shall submit the following information to the Department:

(a) A description of, and the location of, each fuel-burning equipment or other installation in which the used oil or WCF is to be burned and the rated heat input capacity of each;

(b) The type and amount of fuel currently being used in each installation and the gallons of used oil or WCF expected to be burned annually;

(c) The maximum percentage of used oil or WCF to be burned as fuel in each installation; and

(d) An analysis by an independent laboratory of a representative sample of the used oil or WCF, which shall include the concentration of each of the materials listed in §B of this regulation, the PCB concentration, and the flash point.

(2) A person may burn on-specification used oil in any installation upon submitting the information required in §A(1) of this regulation.

(3) A person who is burning used oil or WCF under a current approval issued by the Department may continue to burn the approved material if:

(a) The person registers the equipment that is burning the used oil or WCF by submitting the information required in §A(1) of this regulation; and

(b) The used oil or WCF is being burned in an authorized installation.

(4) A person who proposes to burn off-specification used oil or WCF in an installation other than a space heater, as provided in 40 CFR §279.23, is subject to the permit or registration requirements in COMAR 26.11.02.

(5) A person who receives a permit or registration to burn used oil or WCF shall burn only the materials authorized in the permit or registration.

(6) A person may burn off-specification used oil and waste combustible fluid only in those installations listed at 40 CFR §279.12(c).

B. Specifications for Used Oil.

(1) Except as provided in §B(2) of this regulation, used oil specifications are as follows:

| Material | Allowable Level |
|---|---|
| (a) Lead | 100 ppm |
| (b) Total halogens | 4,000 ppm |
| (c) Arsenic | 5 ppm |
| (d) Cadmium | 2 ppm |
| (e) Chromium | 10 ppm |

(f) Flash point 100° F minimum

(2) For used oil that does not satisfy the rebuttable presumption for halogens at 40 CFR 279.10(b)(1)(ii) and 279.63, the maximum allowable level for halogens may not exceed 1,000 ppm.

C. Requirements for Burning Used Oil or WCF Containing PCB.

(1) Used oil or WCF containing quantifiable levels of PCB (2ppm) or greater but less than 50 ppm may be burned only in those installations listed at 40 CFR §279.12(c) or 40 CFR 761.

(2) Used oil or WCF containing PCB with a concentration of 50 ppm or greater is hazardous waste."

## Part C – Construction and Operating Conditions

(1) Except as otherwise provided in this part, the Weil-McLain boiler rated at 4.9 million Btu per hour heat input shall be constructed in accordance with specifications included in the applications.

(2) The Weil-McLain boiler shall burn No. 2 fuel oil, used oil or waste combustible fluids only.

(3) The Weil-McLain boiler shall not burn any distillate fuel oil with sulfur content greater than 0.3% by weight.

## Part D – Record Keeping and Reporting

(1) The Permittee shall retain records of plant-wide fuel usage and hours of operation for the boilers on site.

(2) All records required under this permit shall be maintained on site by the Permittee for at least five (5) years and shall be made available to the Department upon request.

(3) All notifications and reports required by this permit shall be submitted to:

Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Blvd, Suite 715
Baltimore, Maryland 21230

(4) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

Weil McLain 4.9M
CH545 (Air Fuel)

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

AIR AND RADIATION MANAGEMENT ADMINISTRATION

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪ 1-800-633-6101 ▪ www.mde.state.md.us

JAN 15 2008
MARYLAND DEPARTMENT OF THE ENVIRONMENT

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR FUEL BURNING EQUIPMENT

Permit to Construct ☐ Registration UpdateX Initial Registration ☐

**1A. Owner of Equipment/Company Name**
W.L. Gore & Associates, Inc. – Cherry Hill Plant

Mailing Address/Street
2401 Singerly Road

City: Elkton State: MD Zip Code: 21015

Telephone Number 410-398-6400

Print Name/Title
Steve D. Lishowid

Signature: Steve D. Lishowid Date: 1/7/08

**DO NOT WRITE IN THIS BOX**

**2. Registration Number**

| County No. | Premises No. |
|---|---|
| 015 | 0079 |
| 1-2 | 3-6 |

| Registration Class | Equipment No. |
|---|---|
| 4 | 0156 |
| 7 | 6-11 |

Data Year 08 (12-13)

Application Date

**1B. Equipment Location (if different from above give Street Number and Name, City, State, Zip and Telephone Number):**

SAME

Premises Name (if different from above): SAME

**3. Status**

A= New Equipment
B= Modification to Existing Equipment
C= Existing Equipment

| Status | New Construction Began (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| B | 11/2005 | 11/2005 | 06/1985 |
| 15 | | | |

**4. Describe this Equipment (Make, Model, Features, Manufacturer, etc.):**
**Weil-McLain, #94-1594, 4.9 MBtu/hr Heat Input Boiler #1**

**5. Workmen's Compensation Coverage:** Binder/Policy Number: WA7-63D-004150-067

Company Name: Liberty Mutual Expiration Date 3/31/2008

**NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.**

**6. Number of Pieces of Identical Equipment to be Registered/Permitted at this Time:** 1

**7. Person Installing this Equipment (if different from above give Name/Title, Company Name, Mailing Address and Telephone Number):**

**8. Major Activity, Product or Service of Company at this Location:**

PTFE Fabrication, Boiler is located in the Cherry Hill boiler room

**9. Control Devices Associated with this Equipment**

None [X] (24-0) Simple/Multiple Cyclones ☐ (24-1) Spray/Adsorb Tower ☐ (24-2) Venturi Scrubber ☐ (24-3) Carbon Adsorber ☐ (24-4) Electrostatic Precipitator ☐ (24-5) Bag-house ☐ (24-6)

Thermal/Catalytic Afterburner ☐ (24-7) Dry Scrubber ☐ (24-8) Other ☐ (24-9) Describe

Form number: 11
Revision date: 09/27/2002
TTY Users 1-800-735-2258


Recycled Paper

**10. Annual Fuel Consumption for this Equipment Only** — **WORST CASE ESTIMATE**

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 245 | 0.17 | 2 | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS: Used Oil (Specify Type) — X (66-1) — ANNUAL AMOUNT CONSUMED: 350 gallons (Specify Units of Measure)

OTHER FUEL: Waste Combustible Fluid (Specify Type) — X (66-2) — ANNUAL AMOUNT CONSUMED: 450 gallons (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

**11. Operating Schedule (for this equipment)**

Comfort/Space Heating Only: X (67-1) — Process Heat Only: (67-2) — Percent Process Heat: (68-69) — Oil Burner Type: (70) 1=Pressure Gun 2=Air Atomizer 3=Steam Atomizer 4=Rotary Cup — Coal Burner Type: (71) 1=Cyclone 2=Stoker 3=Pulverized 4=Hand Fired

SEASONAL VARIATION IN OPERATION (PERCENT):

| Days Per Week | Days Per Year | None | Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| | 250 | | 50 | 25 | 0 | 25 |
| 72 | 73-75 | 76 | 77-78 | 79-80 | 81-82 | 83-84 |

**12. Exhaust Stack Information**

| Height Above Ground (ft) | Inside Diameter at Top (inches) | Exit Temperature (°F) | Exit Velocity (ft/sec) |
|---|---|---|---|
| 30 | 20 | | 17 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**13. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day**

| Particulate Matter | Oxides of Sulfu | Oxides of Nitrogen | Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|---|---|---|
| 1.34 | 16.45 | 13.44 | 3.36 | 0.23 | |
| 99-104 | 105-110 | 111-116 | 117-122 | 123-128 | 129-134 |

**14. Method Used to Determine Emissions (1=Estimate, 2=AP42, 3=Stack Test, 4=Other Emission Factor)**

| TSP | SOx | NOx | CO | VOC | PM10 |
|---|---|---|---|---|---|
| 2 | 2 | 2 | 2 | 2 | 2 |
| 165 | 166 | 167 | 168 | 169 | 170 |

**15. What is the Maximum Rated Heat Input of this Unit (Million Btu/hr)? 4.9 MBTU**

Air and Radiation Management Administration Use Only

16. Date Rec'd Local _____ Date Rec'd State 1/15/08

Return to Local Jurisdiction Date _____ By _____

Rev'd by Local Jurisdiction: Date _____ By _____ Rev'd by State: Date 1/16/08 By M. Gurley

Acknowledgement Sent by State: Date 1/17/08 By M. Gurley

| 17. Inventory Date (MM/YY) | SCC Code | 18. Annual Operating Rate | Maximum Design Hourly Rate |
|---|---|---|---|
| | 1 0 2 0 0 5 0 3 | | |
| 171-174 | 178-185 | 186-192 | 193-199 |

| Permit to Operate Month | Transaction Date | Staff Code | VOC | SIP Code |
|---|---|---|---|---|
| | | | | |
| 200-201 | 202-207 | 208-210 | 211 212 | 213 214 |

Regulation Code (215-218) — Confidentiality (219)

Point Description: Boiler #2 (220-238) — Action (239): A: Add, C: Change

Weil McLain 8.6M
CH2594 (Alt.Fuel)

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪ 1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR FUEL BURNING EQUIPMENT

Permit to Construct ☐ Registration UpdateX Initial Registration ☐

**1A. Owner of Equipment/Company Name**
W.L. Gore & Associates, Inc. – Cherry Hill Plant

Mailing Address/Street
2401 Singerly Road

City: Elkton | State: MD | Zip Code: 21015

Telephone Number: 410-398-6400

Print Name/Title
Steve D. Lishowid

**DO NOT WRITE IN THIS BOX**

**2. Registration Number**

| County No. | Premises No. |
|---|---|
| 015 | 0079 |
| 1-2 | 3-6 |

| Registration Class | Equipment No. |
|---|---|
| 4 | 0200 |
| 7 | 6-11 |

Data Year: 08 (12-13)

Application Date

Signature: Steve D. Lishowid Date: 1/7/08

**1B. Equipment Location (if different from above give Street Number and Name, City, State, Zip and Telephone Number):**

SAME

Premises Name (if different from above): SAME

**3. Status**

A= New Equipment
B= Modification to Existing Equipment
C= Existing Equipment

| Status | New Construction Began (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| B | 11/2005 | 11/2005 | 10/1997 |
| 15 | | | |

**4. Describe this Equipment (Make, Model, Features, Manufacturer, etc.):**
**Weil-McLain, 8.7 MBtu/hr Heat Input Boiler #3**

**5. Workmen's Compensation Coverage:** Binder/Policy Number: WA7-63D-004150-067
Company Name: Liberty Mutual Expiration Date 3/31/2008

**NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.**

**6. Number of Pieces of Identical Equipment to be Registered/Permitted at this Time: 1.**

**7. Person Installing this Equipment (if different from above give Name/Title, Company Name, Mailing Address and Telephone Number):**

**8. Major Activity, Product or Service of Company at this Location:**

PTFE Fabrication, Boiler is located in the Cherry Hill boiler room

**9. Control Devices Associated with this Equipment**

None [X] (24-0) Simple/Multiple Cyclones ☐ (24-1) Spray/Adsorb Tower ☐ (24-2) Venturi Scrubber ☐ (24-3) Carbon Adsorber ☐ (24-4) Electrostatic Precipitator ☐ (24-5) Bag-house ☐ (24-6)

Thermal/Catalytic Afterburner ☐ (24-7) Dry Scrubber ☐ (24-8) Other ☐ (24-9) Describe

Weil McLain 8.6M

## 10. Annual Fuel Consumption for this Equipment Only

**WORST CASE ESTIMATE**

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 FT$^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 420 | 0.17 | 2 | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS: Used Oil (Specify Type) [X] 66-1 — ANNUAL AMOUNT CONSUMED: 600 gallons (Specify Units of Measure)

OTHER FUEL: Waste Combustible Fluid (Specify Type) [X] 66-2 — ANNUAL AMOUNT CONSUMED: 750 gallons (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

## 11. Operating Schedule (for this equipment)

Comfort/Space Heating Only [X] 67-1 — Process Heat Only [ ] 67-2 — Percent Process Heat [ ] 68-69 — Oil Burner Type [ ] 70 (1=Pressure Gun 2=Air Atomizer 3=Steam Atomizer 4=Rotary Cup) — Coal Burner Type [ ] 71 (1=Cyclone 2=Stoker 3=Pulverized 4=Hand Fired)

SEASONAL VARIATION IN OPERATION (PERCENT):

Days Per Week [ ] 72 — Days Per Year 250 73-75 — None [ ] 76 — Winter 50 77-78 — Spring 25 79-80 — Summer 0 81-82 — Fall 25 83-84

## 12. Exhaust Stack Information

| Height Above Ground (ft) | Inside Diameter at Top (inches) | Exit Temperature (°F) | Exit Velocity (ft/sec) |
|---|---|---|---|
| 36 | 26 | 360 | 17 |
| 86-88 | 89-91 | 92-95 | 96-98 |

## 13. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfu | Oxides of Nitrogen |
|---|---|---|
| 2.30 | 28.20 | 23.04 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 5.76 | 0.39 | |
| 117-122 | 123-128 | 129-134 |

## 14. Method Used to Determine Emissions (1=Estimate, 2=AP42, 3=Stack Test, 4=Other Emission Factor)

| TSP | SOx | NOx | CO | VOC | PM10 |
|---|---|---|---|---|---|
| 2 | 2 | 2 | 2 | 2 | 2 |
| 165 | 166 | 167 | 168 | 169 | 170 |

**15. What is the Maximum Rated Heat Input of this Unit (Million Btu/hr)? 8.7 MBTU**

Air and Radiation Management Administration Use Only

16. Date Rec'd Local _____ Date Rec'd State 1/15/08

Return to Local Jurisdiction Date _____ By _____

Rev'd by Local Jurisdiction: Date _____ By _____ Rev'd by State: Date 1/16/08 By M. Gurley

Acknowledgement Sent by State: Date 1/17/08 By M. Gurley

| 17. Inventory Date (MM/YY) | SCC Code | 18. Annual Operating Rate | Maximum Design Hourly Rate |
|---|---|---|---|
| | 1 0 2 0 0 5 0 3 | | |
| 171-174 | 178-185 | 186-192 | 193-199 |

| Permit to Operate Month | Transaction Date | Staff Code | VOC | SIP Code |
|---|---|---|---|---|
| | | | | |
| 200-201 | 202-207 | 208-210 | 211 212 | 213 214 |

Regulation Code [ ] 215-218 — Confidentiality [ ] 219

Point Description: Boiler #5 220-238 — Action [ ] 239 (A: Add, C: Change)

2-Burnham Boilers

AIR AND RADIATION
MANAGEMENT ADMINISTRATION

JAN 15 2008

MARYLAND DEPARTMENT
OF THE ENVIRONMENT

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪ 1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR FUEL BURNING EQUIPMENT

Permit to Construct ☐ Registration Update [X] Initial Registration ☐

**1A. Owner of Equipment/Company Name**
W.L. Gore & Associates, Inc. – **Cherry Hill Plant**

Mailing Address/Street
2401 Singerly Road

City: Elkton | State: MD | Zip Code: 21015

Telephone Number: 410-398-6400

Print Name/Title
Steve D. Lishowid

Signature: Steve D. Lishowid Date: 1/7/08

**DO NOT WRITE IN THIS BOX**

**2. Registration Number**

| County No. (1-2) | Premises No. (3-6) |
|---|---|
| 015 | 0079 |

| Registration Class (7) | Equipment No. (6-11) |
|---|---|
| 4 | 0223 & 0224 |

Data Year (12-13): 08

Application Date

**1B. Equipment Location (if different from above give Street Number and Name, City, State, Zip and Telephone Number):**

SAME

Premises Name (if different from above): SAME

**3. Status**

A= New Equipment
B= Modification to Existing Equipment
C= Existing Equipment

| Status (15) | New Construction Began (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) (20-23) |
|---|---|---|---|
| A | 12/2006 | 12/2006 | 8/2007 |

**4. Describe this Equipment (Make, Model, Features, Manufacturer, etc.):**

**2 – Burnham Boilers, low NOx, LN4SL-250-SLP-60-PF, 9.45 MBtu/hr**

**5. Workmen's Compensation Coverage:** Binder/Policy Number: WA7-63D-004150-067

Company Name: Liberty Mutual Expiration Date 3/31/2008

**NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.**

**6. Number of Pieces of Identical Equipment to be Registered/Permitted at this Time:** 2

**7. Person Installing this Equipment (if different from above give Name/Title, Company Name, Mailing Address and Telephone Number):**
**Wolhson Construction, Merit Construction and Burnham**

**8. Major Activity, Product or Service of Company at this Location:**

PTFE Fabrication, Both boilers are located in the Lower level of the Bay at Cherry Hill

**9. Control Devices Associated with this Equipment**

None ☐ (24-0) Simple/Multiple Cyclones ☐ (24-1) Spray/Adsorb Tower ☐ (24-2) Venturi Scrubber ☐ (24-3) Carbon Adsorber ☐ (24-4) Electrostatic Precipitator ☐ (24-5) Bag-house ☐ (24-6)

Thermal/Catalytic Afterburner ☐ (24-7) Dry Scrubber ☐ (24-8) Other [X] (24-9) Describe Low NOx Burners

2-Burnham Boilers

**10. Annual Fuel Consumption for this Equipment Only** **WORST CASE ESTIMATE**

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 1,000 | 0.17 | 2 | | 23,027 | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS Used Oil (Specify Type) [X] 66-1 ANNUAL AMOUNT CONSUMED 1,320 gallons (Specify Units of Measure)

OTHER FUEL Waste Combustible Fluid (Specify Type) [X] 66-2 ANNUAL AMOUNT CONSUMED 1,666 gallons (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

**11. Operating Schedule (for this equipment)**

Comfort/Space Heating Only [ ] 67-1 Process Heat Only [ ] 67-2 Percent Process Heat [10] 68-69 Oil Burner Type [2] 70 (1=Pressure Gun 2=Air Atomizer 3=Steam Atomizer 4=Rotary Cup) Coal Burner Type [ ] 71 (1=Cyclone 2=Stoker 3=Pulverized 4=Hand Fired)

SEASONAL VARIATION IN OPERATION (PERCENT):

Days Per Week [ ] 72 Days Per Year [360] 73-75 None [X] 76 Winter [ ] 77-78 Spring [ ] 79-80 Summer [ ] 81-82 Fall [ ] 83-84

**12. Exhaust Stack Information**

| Height Above Ground (ft) | Inside Diameter at Top (inches) | Exit Temperature (°F) | Exit Velocity (ft/sec) |
|---|---|---|---|
| | | | |
| 86-88 | 89-91 | 92-95 | 96-98 |

**13. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day**

| Particulate Matter | Oxides of Sulfu | Oxides of Nitrogen |
|---|---|---|
| 5.18 | 63.46 | 51.84 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 12.96 | 0.88 | |
| 117-122 | 123-128 | 129-134 |

**14. Method Used to Determine Emissions (1=Estimate, 2=AP42, 3=Stack Test, 4=Other Emission Factor)**

| TSP | SOx | NOx | CO | VOC | PM10 |
|---|---|---|---|---|---|
| 2 | 2 | 2 | 2 | 2 | 2 |
| 165 | 166 | 167 | 168 | 169 | 170 |

**15. What is the Maximum Rated Heat Input of this Unit (Million Btu/hr)? 9.45 MBTU**

Air and Radiation Management Administration Use Only

16. Date Rec'd Local _____ Date Rec'd State 1/15/08

Return to Local Jurisdiction Date _____ By _____

Rev'd by Local Jurisdiction: Date _____ By _____ Rev'd by State: Date 1/16/08 By M. Gurley

Acknowledgement Sent by State: Date 1/17/08 By M. Gurley

| 17. Inventory Date (MM/YY) | SCC Code | 18. Annual Operating Rate | Maximum Design Hourly Rate |
|---|---|---|---|
| | 1 0 2 0 0 5 0 3 | | |
| 171-174 | 178-185 | 186-192 | 193-199 |

| Permit to Operate Month | Transaction Date | Staff Code | VOC | SIP Code |
|---|---|---|---|---|
| | | | | |
| 200-201 | 202-207 | 208-210 | 211 212 | 213 214 |

Regulation Code [ ] 215-218 Confidentiality [ ] 219

Point Description Boiler #4 + #5 220-238 Action [ ] 239 A: Add C: Change

C

**KEEP PERMIT AT SITE** **CONTROL NO. B- 01687**

State of Maryland

Martin O' Malley
Governor

Shari T. Wilson
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

| | | | |
|---|---|---|---|
| PERMIT NO. | 015-0079-4-0223 & 4-0224 | DATE ISSUED | February 8, 2008 |
| PERMIT FEE | $1,000.00 (PAID) | EXPIRATION DATE | In accordance with COMAR 26.11.02.04B |

**LEGAL OWNER & ADDRESS**

W.L. Gore & Associates, Inc.
2401 Singerly Road
P.O. Box 1220
Elkton MD 21922-1220
Attn: Mr. Steve D. Lishowid

**SITE**

Cherry Hill Plant
SAME
CECIL County
Premises# - 0079
AI# - 128

**SOURCE DESCRIPTION**

Modification of two (2) Burnham No. 2 fuel oil/propane fired boilers, each rated at 9.45 million Btu per hour heat input and equipped with low NOx burners, to include combustion of used oil and waste combustible fluids.

This Permit to Construct supersedes Permit to Construct Number 015-4-0223 & 4-0224 N issued December 13, 2006.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction and Operating Conditions
Part D – Record Keeping and Reporting

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:

(a) Application for Fuel Burning Equipment (Form 11) received November 29, 2006 and January 15, 2008 request to burn alternate fuels.

(b) Supplemental Information (Emissions calculations and Manufacturers specifications) received November 29, 2006.

(c) Supplemental Information (Emissions calculations, Summary of Sample Results and Report of fuel analysis) received January 15, 2008.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The addition of two (2) No. 2 fuel oil/propane/used oil/waste combustible fluids fired boilers qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.01.07C - Report of Excess Emissions.
"(1) In the case of any occurrence of excess emissions, expected to last or actually lasting for 1 hour or more, from any installation required by COMAR 26.11.02.13 to obtain a State permit to operate, the owner or operator shall report the onset and shall report the termination of the occurrence to the Department by telephone.
(2) Telephone reports of excess emissions shall include the following information:
(a) The identity of the installation and the person reporting;
(b) The nature or characteristics of the emissions (for example, hydrocarbons, fluorides);
(c) The time of occurrence of the onset of the excess emissions and the actual or expected duration of the occurrence; and

(d) The actual or probable cause of the excess emissions."

(b) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.09.05A(1) – Visible Emissions. "A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.09.05A(3) Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period."

(d) COMAR 26.11.09.07A - Control of Sulfur Oxides From Fuel Burning Equipment.
Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

(3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.09.10 - Requirements to Burn Used Oil and Waste Combustible Fluid as Fuel.

A. General Requirements.

"(1) A person who proposes to burn used oil or waste combustible fluid in an installation shall submit the following information to the Department:

(a) A description of, and the location of, each fuel-burning equipment or other installation in which the used oil or WCF is to be burned and the rated heat input capacity of each;

(b) The type and amount of fuel currently being used in each installation and the gallons of used oil or WCF expected to be burned annually;

(c) The maximum percentage of used oil or WCF to be burned as fuel in each installation; and

(d) An analysis by an independent laboratory of a representative sample of the used oil or WCF, which shall include the concentration of each of the materials listed in §B of this regulation, the PCB concentration, and the flash point.

(2) A person may burn on-specification used oil in any installation upon submitting the information required in §A(1) of this regulation.

(3) A person who is burning used oil or WCF under a current approval issued by the Department may continue to burn the approved material if:

(a) The person registers the equipment that is burning the used oil or WCF by submitting the information required in §A(1) of this regulation; and

(b) The used oil or WCF is being burned in an authorized installation.

(4) A person who proposes to burn off-specification used oil or WCF in an installation other than a space heater, as provided in 40 CFR §279.23, is subject to the permit or registration requirements in COMAR 26.11.02.

(5) A person who receives a permit or registration to burn used oil or WCF shall burn only the materials authorized in the permit or registration.

(6) A person may burn off-specification used oil and waste combustible fluid only in those installations listed at 40 CFR §279.12(c).

B. Specifications for Used Oil.

(1) Except as provided in §B(2) of this regulation, used oil specifications are as follows:

| Material | Allowable Level |
|---|---|
| (a) Lead | 100 ppm |
| (b) Total halogens | 4,000 ppm |
| (c) Arsenic | 5 ppm |
| (d) Cadmium | 2 ppm |
| (e) Chromium | 10 ppm |
| (f) Flash point | 100° F minimum |

(2) For used oil that does not satisfy the rebuttable presumption for halogens at 40 CFR 279.10(b)(1)(ii) and 279.63, the maximum allowable level for halogens may not exceed 1,000 ppm.
C. Requirements for Burning Used Oil or WCF Containing PCB.
(1) Used oil or WCF containing quantifiable levels of PCB (2ppm) or greater but less than 50 ppm may be burned only in those installations listed at 40 CFR §279.12(c) or 40 CFR 761.
(2) Used oil or WCF containing PCB with a concentration of 50 ppm or greater is hazardous waste."

## Part C – Construction and Operating Conditions

(1) Except as otherwise provided in this part, the two (2) Burnham boilers each rated at 9.45 million Btu per hour heat input shall be constructed in accordance with specifications included in the applications.

(2) The two (2) Burnham boilers shall burn No. 2 fuel oil, propane, used oil or waste combustible fluids only.

(3) The two (2) Burnham boilers shall be equipped with low $NO_x$ burners.

(4) The two (2) Burnham boilers shall not burn any distillate fuel oil with sulfur content greater than 0.3% by weight.

## Part D – Record Keeping and Reporting

(1) The Permittee shall retain records of plant-wide fuel usage and hours of operation for the boilers on site.

(2) All records required under this permit shall be maintained on site by the Permittee for at least five (5) years and shall be made available to the Department upon request.

(3) All notifications and reports required by this permit shall be submitted to:

Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Blvd, Suite 715
Baltimore, Maryland 21230

(4) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

**KEEP PERMIT AT SITE** **CONTROL NO. B- 01686**

*State of Maryland*

Martin O' Malley
Governor

Shari T. Wilson
Secretary

**DEPARTMENT OF THE ENVIRONMENT**

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

| | | | |
|---|---|---|---|
| PERMIT NO. | 015-0079-4-0200 | DATE ISSUED | February 8, 2008 |
| PERMIT FEE | $500.00 (PAID) | EXPIRATION DATE | In accordance with COMAR 26.11.02.04B |

LEGAL OWNER & ADDRESS
W.L. Gore & Associates, Inc.
2401 Singerly Road
P.O. Box 1220
Elkton MD 21922-1220
Attn: Mr. Steve D. Lishowid

SITE
Cherry Hill Plant
SAME
CECIL County
Premises# - 0079
AI# - 128

SOURCE DESCRIPTION
Modification of Weil-McLain No. 2 fuel oil fired boiler (Boiler #3) rated at 8.6 million Btu per hour heat input to include combustion of used oil and waste combustible fluids.

This Permit to Construct supersedes Permit to Construct Number 07-4-0200 N issued November 24, 1997.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction and Operating Conditions
Part D – Record Keeping and Reporting

---

## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:

(a) Application for Fuel Burning Equipment (Form 11) received October 15, 1997 and January 15, 2008 request to burn alternate fuels.

(b) Supplemental Information (Emissions calculations, Summary of Sample Results and Report of fuel analysis) received January 15, 2008.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The modification of the No. 2 fuel oil/used oil/waste combustible fluids fired boiler qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.01.07C - Report of Excess Emissions.
"(1) In the case of any occurrence of excess emissions, expected to last or actually lasting for 1 hour or more, from any installation required by COMAR 26.11.02.13 to obtain a State permit to operate, the owner or operator shall report the onset and shall report the termination of the occurrence to the Department by telephone.
(2) Telephone reports of excess emissions shall include the following information:
(a) The identity of the installation and the person reporting;
(b) The nature or characteristics of the emissions (for example, hydrocarbons, fluorides);
(c) The time of occurrence of the onset of the excess emissions and the actual or expected duration of the occurrence; and

(d) The actual or probable cause of the excess emissions."

(b) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.09.05A(1) – Visible Emissions. "A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.09.05A(3) Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period."

(d) COMAR 26.11.09.07A - Control of Sulfur Oxides From Fuel Burning Equipment.
Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

(3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.09.10 - Requirements to Burn Used Oil and Waste Combustible Fluid as Fuel.

A. General Requirements.

"(1) A person who proposes to burn used oil or waste combustible fluid in an installation shall submit the following information to the Department:

(a) A description of, and the location of, each fuel-burning equipment or other installation in which the used oil or WCF is to be burned and the rated heat input capacity of each;

(b) The type and amount of fuel currently being used in each installation and the gallons of used oil or WCF expected to be burned annually;

(c) The maximum percentage of used oil or WCF to be burned as fuel in each installation; and

(d) An analysis by an independent laboratory of a representative sample of the used oil or WCF, which shall include the concentration of each of the materials listed in §B of this regulation, the PCB concentration, and the flash point.

(2) A person may burn on-specification used oil in any installation upon submitting the information required in §A(1) of this regulation.

(3) A person who is burning used oil or WCF under a current approval issued by the Department may continue to burn the approved material if:

(a) The person registers the equipment that is burning the used oil or WCF by submitting the information required in §A(1) of this regulation; and

(b) The used oil or WCF is being burned in an authorized installation.

(4) A person who proposes to burn off-specification used oil or WCF in an installation other than a space heater, as provided in 40 CFR §279.23, is subject to the permit or registration requirements in COMAR 26.11.02.

(5) A person who receives a permit or registration to burn used oil or WCF shall burn only the materials authorized in the permit or registration.

(6) A person may burn off-specification used oil and waste combustible fluid only in those installations listed at 40 CFR §279.12(c).

B. Specifications for Used Oil.

(1) Except as provided in §B(2) of this regulation, used oil specifications are as follows:

| Material | Allowable Level |
|---|---|
| (a) Lead | 100 ppm |
| (b) Total halogens | 4,000 ppm |
| (c) Arsenic | 5 ppm |
| (d) Cadmium | 2 ppm |
| (e) Chromium | 10 ppm |

(f) Flash point 100° F minimum

(2) For used oil that does not satisfy the rebuttable presumption for halogens at 40 CFR 279.10(b)(1)(ii) and 279.63, the maximum allowable level for halogens may not exceed 1,000 ppm.

C. Requirements for Burning Used Oil or WCF Containing PCB.

(1) Used oil or WCF containing quantifiable levels of PCB (2ppm) or greater but less than 50 ppm may be burned only in those installations listed at 40 CFR §279.12(c) or 40 CFR 761.

(2) Used oil or WCF containing PCB with a concentration of 50 ppm or greater is hazardous waste."

## Part C – Construction and Operating Conditions

(1) Except as otherwise provided in this part, the Weil-McLain boiler rated at 8.6 million Btu per hour heat input shall be constructed in accordance with specifications included in the applications.

(2) The Weil-McLain boiler shall burn No. 2 fuel oil, used oil or waste combustible fluids only.

(3) The Weil-McLain boiler shall not burn any distillate fuel oil with sulfur content greater than 0.3% by weight.

## Part D – Record Keeping and Reporting

(1) The Permittee shall retain records of plant-wide fuel usage and hours of operation for the boilers on site.

(2) All records required under this permit shall be maintained on site by the Permittee for at least five (5) years and shall be made available to the Department upon request.

(3) All notifications and reports required by this permit shall be submitted to:

Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Blvd, Suite 715
Baltimore, Maryland 21230

(4) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

24-015-00079


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

MDE

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101



Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary


JUL 29 2008

RECEIVED
AUG 04 2008
Air Protection Division

RECEIVED
AUG 04 2008
Air Protection Division (3AP11)

Mr. Mark A. Steimer, Sr., Plant Leader
W.L. Gore & Associates
Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921

Re: Part 70 Operating Permit Renewal 24-015-00079

Dear Mr. Steimer:

Enclosed please find the Title V Operating Permit and Fact Sheet for the Cherry Hill facility. The permit will expire on June 30, 2013.

The Code of Maryland Regulations (COMAR) 26.11.03.11 states the following:

> If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant receives notice that the permit has been denied or of the objectionable terms and conditions. The request shall include the basis for the request and refer to any objectionable terms and conditions.

If you have any questions, please feel free to call Ms. Marcellina Gurley, the permit manager for this facility, at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/jm

Enclosures

cc: Paul Arnold, EPA Region III, with enclosures

**KEEP PERMIT AT SITE** **CONTROL NO. B-01902**

*State of Maryland*

Martin O'Malley
Governor

Shari T. Wilson
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

PERMIT NO. 24-015-00079

DATE ISSUED August 1, 2008

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B(b)

EXPIRATION DATE June 30, 2013

LEGAL OWNER & ADDRESS
W.L. Gore & Associates, Inc.
Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921
Attn: Mr. Mark A. Steimer, Sr., Plant Leader

SITE
Same
Cecil County
A.I.#128

SOURCE DESCRIPTION

Fluoropolymer material (FPM) Manufacturing Facility consisting of dryers, ovens and other miscellaneous equipments.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration



**(NOT TRANSFERABLE)**

**W.L. GORE & ASSOCIATES, INC.**
**CHERRY HILL PLANT**
**2401 SINGERLY ROAD**
**ELKTON, MARYLAND 21921**
**PART 70 OPERATING PERMIT NO. 24-015-00079-2008**


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## SECTION I SOURCE IDENTIFICATION

### 1. DESCRIPTION OF FACILITY

W. L. Gore & Associates, Inc. is a worldwide manufacturing corporation with headquarters in Newark, Delaware. W. L. Gore & Associates, Inc. – Cherry Hill facility is located at 2401 Singerly Road in Cecil County, Maryland. The Cherry Hill plant operations utilize Fluoropolymer material (FPM) forming and stretching equipment. The primary SIC for this facility is 3087.

### 2. FACILITY INVENTORY LIST

The Cherry Hill plant has identified the following emission units as being subject to the Title V permitting requirements and having applicable requirements.

| Emissions Unit Number | MDE Registration Number | CH Number | Emissions Unit Description | Date of Installation |
|---|---|---|---|---|
| EU 1-1 Particulate Matter Emitting Units | 6-0104 | 63203 | Mixing and Compounding Area (Filled Products front end controlled by baghouse | 05/2001 & 07/2002 |
| | | 1931985 | Mixing and Compounding Area – fugitive emissions. | 08/2002 |
| EU 2-1 Boilers | 4-0223 & 4-0224 | | Two (2) Burnham No.2 fuel oil/propane fired boilers each rated at 9.45 million Btu per hour heat input and equipped with low $NO_x$ burners. Boilers modified on February 8, 2008 to burn used oil and waste combustible fuels. | 12/2006 Modified 2/8/08 |
| | 4-0156 | 5456 | One Weil McLain No. 2 fuel oil boiler rated at 4.9 million Btu per hour heat input. (Boiler #1). Boiler modified on February 8, 2008 to burn used oil and waste combustible fuels | 03/1985 Modified 2/8/08 |
| | 4-0200 | 2594 | One Weil McLain No. 2 fuel oil boiler rated at 8.6 million Btu per hour heat input. (Boiler #3). Boiler modified on February 8, 2008 to burn used oil and waste combustible fuels | 11/1997 Modified 2/8/08 |
| EU2-2 Emergency Generator | 9-0169 | | One (1) Onan 1200 bhp *(800 kW)* diesel emergency generator | 12/2006 |
| EU 3-1 Natural FPM Product Area vented through the oxidizer | 6-0102 | 2203 | R&D Wing (TD1) vented to the oxidizer control system & atmosphere. | 01//1995 |
| | 6-0100 | 2208 | Truck drying oven located in the FPM Area vented to an oxidizer control system and to the atmosphere. | 09/1994 |

| Emissions Unit Number | MDE Registration Number | CH Number | Emissions Unit Description | Date of Installation |
|---|---|---|---|---|
| control system | 7-0045 | 1045, 1314, 1632,* 2056, 1381 | Five (5) Drum dryers located in the FPM Area vented to the oxidizer control system and vented to the atmosphere. | Pre 1990 |
| | 6-0275 | 1899969 | Dryer-Med tenter vented to an oxidizer control system. | 08/2007 |
| | 6-0260 | 1316 | One dryer vented to an oxidizer control system. | Pre-1990 |
| EU 3-2 Filled FPM Products Area vented through the oxidizer control system | 6-0126 | 2383 | Oven (TD2) located in the filled area vented to the oxidizer control system and to the atmosphere. | 06/1996 |
| | 6-0276 | 2404 | Oven (TD3) located in the FPM area vented to the oxidizer control system and to the atmosphere. | 07/1997 |
| | 6-0131 | 2204 | Oven (GT7) located in the R&D area vented to the oxidizer control system and to the atmosphere. | 09/1996 |
| | 6-0279 | 2615 | R&D oven vented to an oxidizer control system. | 05/1999 |
| EU 3-3 FPM Processing Area vented to atmosphere | 6-0073 | 2573 | One (1) drying oven in FP and vented to the atmosphere. | 01/1999 |
| | 6-0130 | 0685, 2281, 2260, 2505 | Four (4) electric ovens: Three (3) located in the Resin area Lab; one in the Gen Lab: and all vented to the atmosphere. | 08/1982, 07/1996 & 09/1999 |
| | 6-0041 | 2365 & 2366 | Two (2) R&D ovens located in the Filled Product area vented to the atmosphere. | 07/1992 & 10/2003 |
| EU 3-4 Ovens vented to Oxidizer control system | 6-0173 M | 60564 | One (1) batch-drying oven vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 12/1999 |
| | | 2439, 2440 | Two (2) batch-drying ovens vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 03/1999 |
| | | 2597 & 2598 | Two (2) batch-drying ovens vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 02/2000 |
| | | 2369, 60535, 62581 | Oxidizer Control System consisting of Willie, Sara & Tec. | 06/1996;03/1999; 01/2002 |
| | 6-0278 | 60648 | One Rover dryer vented to the oxidizer control system and vented to the atmosphere. | 01/1999 |

| Emissions Unit Number | MDE Registration Number | CH Number | Emissions Unit Description | Date of Installation |
|---|---|---|---|---|
| | 6-0192 | 62177 | One (1) batch-drying oven vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 04/2002 |
| EU 3-5 | | PM5084 | Cold Maintenance Degreaser (30.5 gallon capacity). **See Insignificant Activity List.** | |

## SECTION II GENERAL CONDITIONS

### 1. DEFINITIONS

**[COMAR 26.11.01.01] and [COMAR 26.11.02.01]**

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

### 2. ACRONYMS

| | |
|---|---|
| ARMA | Air and Radiation Management Administration |
| BACT | Best Available Control Technology |
| Btu | British thermal unit |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEM | Continuous Emissions Monitor |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMAR | Code of Maryland Regulations |
| EPA | United States Environmental Protection Agency |
| FR | Federal Register |
| gr | grains |
| HAP | Hazardous Air Pollutant |
| MACT | Maximum Achievable Control Technology |
| MDE | Maryland Department of the Environment |
| MVAC | Motor Vehicle Air Conditioner |
| NESHAPS | National Emission Standards for Hazardous Air Pollutants |
| $NO_x$ | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| OTR | Ozone Transport Region |
| PM | Particulate Matter |
| PM10 | Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less |
| ppm | parts per million |
| ppb | parts per billion |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit to construct |
| PTO | Permit to operate (State) |
| SIC | Standard Industrial Classification |

| | |
|---|---|
| $SO_2$ | Sulfur Dioxide |
| TAP | Toxic Air Pollutant |
| tpy | tons per year |
| VE | Visible Emissions |
| VOC | Volatile Organic Compounds |

## 3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

## 4. PERMIT EXPIRATION

**[COMAR 26.11.03.13B(2)]**

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

## 5. PERMIT RENEWAL

**[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]**

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 6 months, but not more than 12 months, before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This

information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

## 6. CONFIDENTIAL INFORMATION

**[COMAR 26.11.02.02G]**

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

## 7. PERMIT ACTIONS

**[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]**

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

## 8. PERMIT AVAILABILITY

**[COMAR 26.11.02.13G]**

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

## 9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

**[COMAR 26.11.03.20B]**

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

## 10. TRANSFER OF PERMIT

**[COMAR 26.11.02.02E]**

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

## 11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

**[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]**

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

## 12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

**[COMAR 26.11.03.17]**

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal,

including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

## 13. MINOR PERMIT MODIFICATIONS

**[COMAR 26.11.03.16]**

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

## 14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

**[COMAR 26.11.03.15]**

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

## 15. OFF-PERMIT CHANGES TO THIS SOURCE

**[COMAR 26.11.03.19]**

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act, but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

## 16. ON-PERMIT CHANGES TO SOURCES

**[COMAR 26.11.03.18]**

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

## 17. FEE PAYMENT

**[COMAR 26.11.02.16A(2) & (5)(b)]**

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

## 18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

**[COMAR 26.11.02.09.]**

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

## 19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

**[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]**

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

## 20. PROPERTY RIGHTS

**[COMAR 26.11.03.06E(4)]**

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

## 21. SEVERABILITY

**[COMAR 26.11.03.06A(5)]**

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

## 22. INSPECTION AND ENTRY

**[COMAR 26.11.03.06G(3)]**

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

## 23. DUTY TO PROVIDE INFORMATION

**[COMAR 26.11.03.06E(5)]**

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

## 24. COMPLIANCE REQUIREMENTS

**[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]**

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

## 25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

## 26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

**[COMAR 26.11.03.06E(2)]**

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

## 27. CIRCUMVENTION

**[COMAR 26.11.01.06]**

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions, which would otherwise constitute a violation of any applicable air pollution control regulation.

## 28. PERMIT SHIELD

**[COMAR 26.11.03.23]**

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically

identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

## 29. ALTERNATE OPERATING SCENARIOS

**[COMAR 26.11.03.06A(9)]**

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

## SECTION III PLANT WIDE CONDITIONS

### 1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

**[COMAR 26.11.06.03D]**

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

### 2. OPEN BURNING

**[COMAR 26.11.07]**

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

### 3. AIR POLLUTION EPISODE

**[COMAR 26.11.05.04]**

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

### 4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

**[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]**

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

## 5. ACCIDENTAL RELEASE PROVISIONS

**[COMAR 26.11.03.03B(23)] and [40 CFR 68]**

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date

specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

## 6. GENERAL TESTING REQUIREMENTS

**[COMAR 26.11.01.04]**

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

## 7. EMISSIONS TEST METHODS

**[COMAR 26.11.01.04]**

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

## 8. EMISSIONS CERTIFICATION REPORT

**[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]**

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

   (1) Familiar with each source for which the certifications forms are submitted, and

   (2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

   (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

   (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

   (3) Amounts, types and analyses of all fuels used;

   (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

   (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

      (a) Significant maintenance performed,
      (b) Malfunctions and downtime, and

(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

## 9. COMPLIANCE CERTIFICATION REPORT

**[COMAR 26.11.03.06G(6) and (7)]**

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

## 10. CERTIFICATION BY RESPONSIBLE OFFICIAL

**[COMAR 26.11.02.02F]**

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to

truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

## 11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

**[COMAR 26.11.03.06C(5)]**

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

## 12. GENERAL RECORDKEEPING

**[COMAR 26.11.03.06C(6)]**

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

## 13. GENERAL CONFORMITY

**[COMAR 26.11.26.09]**

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

## 14. ASBESTOS PROVISIONS

**[40 CFR 61, Subpart M]**

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

## 15. OZONE DEPLETING REGULATIONS

**[40 CFR 82, Subpart F]**

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.

e. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.166.

f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

g. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

## 16. ACID RAIN PERMIT

Not applicable

## SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Reference: COMAR 26.11.03.06C(5)(g)]**

| Table IV – 1 | |
|---|---|
| **1.0** | **Emissions Unit Number(s): EU1-1**<br><br>Particulate Matter Emitting Units: Mixing and Compounding Area [6-0104].<br>Filled Products front end controlled by baghouse & Fugitive Emission. |
| **1.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."<br>COMAR 26.11.06.02A(2) – General Exception. "The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."<br><br>B. Control of Particulate Matter Emissions<br>COMAR 26.11.06.03B(1) – Particulate Matter from Confined Sources. |

| Table IV – 1 | |
|---|---|
| | "A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/scfd (115 kg/dscm)." |
| 1.2 | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>None.<br><br>B. Control of Particulate Matter Emissions.<br>None. |
| 1.3 | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall conduct a monthly 6-minute visual observation of the baghouse exhaust. The visual observation must be conducted while the baghouse is in operation. If no visible emissions are observed in six consecutive monthly observations from the baghouse exhaust, the Permittee may decrease the frequency of visual observations from monthly to quarterly for the baghouse exhaust. If visible emissions are observed during any quarter visual observation, the Permittee must resume the observation of the baghouse exhaust on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly visual observations. If visible emissions are observed during any observation, the Permittee must conduct an 18-minute test of opacity in accordance with Method 9. The Method 9 test must begin within 24-hour of any observation of visible emissions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions.<br>The Permittee shall update and maintain the preventive maintenance plan for the baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the time frames established in the plan and shall maintain a log with records of the dates and description of the maintenance that was performed. **[Reference: COMAR 26.11.03.06C].** |
| 1.4 | **Record Keeping Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall maintain on site a log of the dates and results of |

| Table IV – 1 | |
|---|---|
| | visible emissions observations for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Particulate Matter Emissions.<br>The Permittee shall maintain a copy of the preventive maintenance plan and a record of the dates of and description of maintenance activity performed. The Permittee shall maintain records of the baghouse malfunctions and the corrective actions taken to bring into proper operation. **[Reference: COMAR 26.11.03.06C].** |
| **1.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"<br><br>B. Control of Particulate Matter Emissions.<br>The Permittee shall submit a copy of the preventive maintenance plan, records of maintenance activities and corrective actions taken to the Department upon request. **[Reference: COMAR 26.11.03.06C].** |

**"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."**

| Table IV – 2 | |
|---|---|
| **2.0** | **Emissions Unit Number(s): EU2-1**<br>Boilers:<br>Two (2) Burnham No.2 fuel oil/propane gas fired boilers each rated at 9.45 million Btu per hour heat input and equipped with low $NO_x$ burners. (Boilers #4 & #5) [4-0223 & 4-0224]<br>One (1) Weil McLain No. 2 fuel oil boiler rated at 4.9 million Btu per hour heat input. (Boiler #1) [4-0156]<br>One (1) Weil McLain No. 2 fuel oil boiler rated at 8.6 million Btu per hour heat input. (Boiler #3) [4-0200]<br><br>The Permittee applied and was issued a modification to the boilers on February 8, 2008 to burn used oil and waste combustible fuels. |
| **2.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions |

| Table IV – 2 | |
|---|---|
| | COMAR 26.11.09.05A(1) - Fuel Burning Equipment. "A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity."<br>COMAR 26.11.09.05A(3) - Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period."<br><br>B. Control of Sulfur Oxides Emissions<br>COMAR 26.11.09.07A(1)(c). Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: Distillate fuel oils, 0.3 percent."<br><br>C. Operational Limits<br>The boilers shall burn No. 2 fuel oil, used oil or waste combustible fluids only. **[Reference: MDE Permit to Construct Nos. 015-0079-4-0223 & 4-0224, 4-0156, & 4-0200 Part C(2) issued February 8, 2008]** |
| **2.2** | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>None.<br><br>B. Control of Sulfur Oxides Emissions.<br>None.<br><br>C. Operational Limits<br>None. |
| **2.3** | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Sulfur Oxides Emissions.<br>The Permittee shall obtain a certification from the fuel supplier with every |

| Table IV – 2 | |
|---|---|
| | shipment indicating that the oil complies with the limitation on the sulfur content of fuel oil. **[Reference: COMAR 26.11.03.06C].**<br><br>C. Operational Limits<br>None. |
| 2.4 | **Record Keeping Requirements:**<br>NOTE: **All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06C(5)(g)].**<br>A. Control of Visible Emissions<br>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Sulfur Oxides Emissions.<br>The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation **[Reference: COMAR 26.11.09.07C].**<br><br>C. Operational Limits<br>The Permittee shall retain records of plant-wide fuel usage and hours of operation for the boilers on site. **[Reference: MDE Permit to Construct Nos. 015-0079-4-0223 & 4-0224, 4-0156, & 4-0200 Part D(1) issued February 8, 2008]** |
| 2.5 | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"<br><br>B. Control of Sulfur Oxides Emissions.<br>The Permittee shall report fuel supplier certifications to the Department upon request **[Reference: COMAR 26.11.09.07C]**<br><br>C. Operational Limits<br>The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III. |

**"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."**

| Table IV – 3 | |
|---|---|
| **3.0** | **Emissions Unit Number(s): EU2-2**<br><br>Emergency Generator:<br>One (1) Onan 1200 bhp *(800 kW)* diesel emergency generator. [9-0169] |
| **3.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>COMAR 26.11.09.05B - Stationary Internal Combustion Engine Powered Equipment<br>"(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.<br>(3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.<br>(4) Exceptions.<br>(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.<br>(b) Section B(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:<br>(i) Engines that are idled continuously when not in service: 30 minutes;<br>(ii) All other engines: 15 minutes.<br>(c) Section B(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."<br><br>B. Control of Sulfur Oxides Emissions<br>COMAR 26.11.09.07A(1)(c). Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: Distillate fuel oils, 0.3 percent."<br><br>C. Operational Limit<br>The emergency diesel generator shall be used for emergency use only and shall not operate more than 500 hours a year, unless the Permittee obtains prior written approval from the Department. **[Reference; Permit to construct No. 9-0169, Part D(2)]** |

| Table IV – 3 | |
|---|---|
| 3.2 | **Testing Requirements:**<br><br>A. Control of Visible Emissions<br>None.<br><br>B. Control of Sulfur Oxides Emissions.<br>None.<br><br>C. Operational Limit<br>None. |
| 3.3 | **Monitoring Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall properly operate and maintain the emergency generator in a manner to prevent visible emissions. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of Sulfur Oxides Emissions.<br>The Permittee shall obtain a certification from the fuel supplier with every shipment indicating that the oil complies with the limitation on the sulfur content of fuel oil. **[Reference: COMAR 26.11.03.06C].**<br><br>C. Operational Limit<br>The Permittee shall maintain a log for the emergency generator indicating the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e. maintenance or operational testing, power outage, etc.) **[Reference: Permit to construct No. 9-0169, Part E(1)]** |
| 3.4 | **Record Keeping Requirements:**<br>NOTE: **All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06C(5)(g)].**<br>A. Control of Visible Emissions<br>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Reference: COMAR 26.11.03.06C].**<br><br>B. Control of Sulfur Oxides Emissions.<br>The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation **[Reference: COMAR** |

| Table IV – 3 | |
|---|---|
| | **26.11.09.07C].**<br><br>C. Operational Limit<br>The Permittee shall maintain logs on site for at least five (5) years and make available to the Department upon request. **[Reference; Permit to construct No. 9-0169, Part E(2)]** |
| **3.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"<br><br>B. Control of Sulfur Oxides Emissions.<br>The Permittee shall report fuel supplier certifications to the Department upon request **[Reference: COMAR 26.11.09.07C]**<br><br>C. Operational Limit<br>The Permittee shall submit a record of the logs with the annual emissions certification report. See permit condition 8 of Section III. |

**"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."**

| Table IV – 4 | |
|---|---|
| **4.0** | **Emissions Unit Number(s): EU3-1, EU3-2, EU3-3, EU3-4**<br><br>EU 3-1 - Natural FPM Product Area vented through the oxidizer control system<br>EU3-2 - Filled FPM Products Area vented through the oxidizer control system.<br>EU3-3 - FPM Processing Area vented to atmosphere.<br>EU3-4 - Ovens vented to Oxidizer control system. |
| **4.1** | **Applicable Standards/Limits:**<br><br>A. Control of Visible Emissions<br>COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than |

| Table IV – 4 | |
|---|---|
| | 20 percent opacity."<br>COMAR 26.11.06.02A(2) – General Exception. "The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:<br>(a) The visible emissions are not greater than 40 percent opacity; and<br>(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."<br><br>B. Control of VOC Emissions<br>COMAR 26.11.19.30E – General Requirements for FPM Process Installations<br>"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.<br>(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:<br>(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;<br>(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and<br>(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and<br>(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.<br>(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.<br>(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.<br>(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:<br>(a) Immediately enclosing all wet FPM during storage; and<br>(b) Covering dipping troughs when not in operation.<br>(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per |

| Table IV – 4 | |
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| | gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation." |
| **4.2** | **<u>Testing Requirements</u>:**<br><br>A. <u>Control of Visible Emissions</u><br>None.<br><br>B. <u>Control of VOC Emissions</u><br>COMAR 26.11.19.30F. <u>Demonstration of Compliance</u>. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."<br>The Permittee shall conduct performance testing of the primary oxidizer in the control system once during the 5-year term of the permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to proposed date of the test. **[Reference: COMAR 26.11.03.06C].** |
| **4.3** | **<u>Monitoring Requirements:</u>**<br><br>A. <u>Control of Visible Emissions</u><br>The Permittee shall visually inspect the exhaust of the oxidizer control system at least monthly for a 6-minute period when the process lines are in operation and shall record the result of each observation. If no visible emissions are observed in six consecutive monthly observations, the frequency of the visual observation may decrease from monthly to quarterly. If emissions are visible greater than 20 percent opacity from the oxidizer control system, the Permittee shall perform the following unless it can be shown through a Method 9 test, that the visible emissions are zero percent opacity:<br>(a) inspect all process and/or control equipment related to emission point;<br>(b) perform all necessary repairs and/or adjustments to the oxidizers, within 48 hours, so that visible emissions in the exhaust gases are less than 20 percent opacity; and<br>(c) document, in writing, the results of the inspections and the repairs and/or adjustments made to the oxidizers.<br>If visible emissions greater than 20 percent opacity have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily when the process lines are in operation until the visible emissions have been reduced to less than 20 percent opacity. |

| Table IV – 4 | |
|---|---|
| | **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of VOC Emissions<br>For the oxidizer control system, the combustion chamber shall be:<br>(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;<br>(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and<br>(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and<br>(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating." [Reference: **COMAR 26.11.19.30E(2)].**<br>The Permittee shall perform checks semi-annually on the thermocouples that monitor the temperatures to the oxidizer control system for accuracy. **[Reference: COMAR 26.11.03.06C].**<br><br>See CAM Plan (40 CFR Part 64 – Compliance Assurance Monitoring) in Table 6 for additional Monitoring Requirements. |
| **4.4** | **Record Keeping Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall keep records of the results of visual emission observations and document any incidence of visible emissions and corrective action taken by the Permittee. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of VOC Emissions<br>The following records shall be kept on site for a period of at least five (5) years except for the design data, which shall be retained permanently. The records shall be made available to the Department on request:<br>(1) Permanent records, for the life of the equipment, of pertinent design data for the control device including manufacturer specifications and/or vendor guarantees for the control device and catalyst, catalyst requirements, design space velocity, operating limits, volume and configuration of catalyst required;<br>(2) Maintenance records of types and dates of work performed on the oxidizer control system;<br>(3) Records of the combustion chamber temperature, which shall be greater than 1400 °F any time a controlled process line is in operation; |

| Table IV – 4 | |
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| | and<br>(4) Records of the results of destruction efficiency tests.<br>(5) The Permittee shall keep records of the damper position and corresponding chamber temperature on site for at least five years.<br>(6) The Permittee shall keep records of the semi-annual checks of the thermocouples on site for at least five years. **[Reference: COMAR 26.11.03.06C]** |
| **4.5** | **Reporting Requirements:**<br><br>A. Control of Visible Emissions<br>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"<br><br>B. Control of VOC Emissions<br>The Permittee shall report results of the performance testing to the Department within 45 days after completion of the test.<br>The Permittee shall make the records of the thermo couple checks made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** |

**"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."**

| Table IV – 5 | |
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| **5.0** | **Emissions Unit Number(s): Facility - Wide** |
| **5.1** | **Applicable Standards/Limits:**<br><br>Control of VOC Emissions<br>A. COMAR 26.11.19.02I – Good Operating Practices, Equipment Cleanup and VOC Storage<br>"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.<br>(2) Good Operating Practices.<br>(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.<br>(b) Good operating practices shall, at a minimum, include the following:<br>(i) Provisions for training of operators on practices, procedures, and |

| Table IV – 5 | |
|---|---|
| | maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;<br>(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;<br>(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;<br>(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and<br>(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.<br>(c) A person subject to this regulation shall:<br>(i) Establish good operating practices in writing;<br>(ii) Make the written operating practices available to the Department upon request; and<br>(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.<br>(3) Equipment Cleanup.<br>(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.<br>(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:<br>(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;<br>(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;<br>(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and<br>(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.<br>(4) VOC Storage and Transfer.<br>(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on |

| Table IV – 5 | |
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| | storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.<br>(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."<br><br>B. COMAR 26.11.19.16C - Control of VOC Leaks<br>General Requirements. "A person subject to this regulation shall comply with all of the following requirements:<br>(1) Visually inspect all components on the premises for leaks at least once each calendar month.<br>(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.<br>(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.<br>(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.<br>(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipefittings.<br>(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence."<br>COMAR 26.11.19.16D. Exceptions. "Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown." |
| **5.2** | **Testing Requirements:** |

| Table IV – 5 | |
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| | Control of VOC Emissions<br>A. Good Operating Practices, Equipment Cleanup and VOC Storage<br>None.<br><br>B. Control of VOC Leaks.<br>None. |
| 5.3 | **Monitoring Requirements:**<br><br>Control of VOC Emissions<br>A. Good Operating Practices, Equipment Cleanup and VOC Storage<br>The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br><br>B. Control of VOC Leaks.<br>The Permittee shall:<br>(1) Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for VOC leaks at least once each calendar month;<br>(2) Tag any VOC leak immediately with I.D. Number, the date VOC leak was discovered, and the name of the person who discovered the VOC leak. The tag is to remain in place until the VOC leak is repaired;<br>(3) Take immediate action to repair/control all observed VOC leaks that can be repaired within 48 hours;<br>(4) Repair all other VOC leaking components not later than 15 days after the VOC leak is discovered in accordance with COMAR 26.11.19.16C(4);<br>(5) If a replacement part is needed, it shall be ordered within 3 days after discovery of the VOC leak and the leak shall be repaired within 48 hours after receiving the part;<br>(6) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and<br>(7) Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source |

| Table IV – 5 | |
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| | shutdown.<br>**[Reference: COMAR 26.11.19.16C and D]** |
| 5.4 | **<u>Record Keeping Requirements</u>:**<br><u>Control of VOC Emissions</u><br>A. <u>Good Operating Practices, Equipment Cleanup and VOC Storage</u><br>The Permittee shall maintain:<br>1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br><br>B. <u>Control of VOC Leaks</u>.<br>The Permittee shall:<br>1) Maintain a log that includes the name of the person conducting the inspection, the date on which VOC leak inspection was made, the findings of the inspection, a list of VOC leaks by tag identification number, the date the part was ordered, and the date the VOC leak was repaired; and<br>2) Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the VOC leaks' occurrence.<br>**[Reference: COMAR 26.11.19.16C(6)]** |
| 5.5 | **<u>Reporting Requirements</u>:**<br><br><u>Control of VOC Emissions</u><br>A. <u>Good Operating Practices, Equipment Cleanup and VOC Storage</u><br>Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request<br><br>B. <u>Control of VOC Leaks</u>.<br>VOC Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request. |

**"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."**

| Table IV-6 | | | |
|---|---|---|---|
| **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64** | | | |
| **Oxidizer Control System (OCS) consisting of the following: Regenerative Thermal Oxidizer #1 (SARA, CH62581); Regenerative Thermal Oxidizer #2 (TEC, CH2369); Regenerative Thermal Oxidizer #3 (WILLIE, CH60535)** | | | |
| **Applicable Requirement** | **VOC:** | | |
| I. Indicator | **Combustion Zone Temperature** | **Visible Emissions** | **Stack Testing** |
| II. Measurement Approach | The combustion zone temperature is measured using thermocouples that are located within the combustion zone. | Periodic observations of the OCS stack can indicate if visible emissions are present. | VOC Emissions are sampled using EPA Reference Method 25A, a continuous extractive sample (40 CFR 60 Appendix A) |
| III. Indicator Range | An excursion occurs when the combustion zone temperature drops below 1400 °F, while processes are venting to the oxidizer. Audible and visual alarms will alert oxidizer operators to a temperature dropping below 1400 °F, and the oxidizer will automatically remove the permissive to operate from all users prior to the temperature reaching 1400 °F. An excursion will trigger an investigation and corrective action, | Quarterly observations are performed for a 6-minute period, while process lines are in operation and being controlled by the OCS. | Stack Test must show a destruction efficiency of 85 percent or greater. |

| | | | |
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| | and if lasting longer than one hour, a reporting requirement. | | |
| **IV Performance Criteria** | | | |
| A. Data Representativeness | The combustion zone temperatures are measured using thermocouples located within the combustion zone. The minimum accuracy of the thermocouple is ±2 degrees F. | A Method 9 visible emissions observation is performed. | See EPA Reference Method 25A. |
| B. Verification of Operational Status | N/A | N/A | See EPA Reference Method 25A |
| C. QA/QC Practices and Criteria | Annual replacement of the combustion zone thermocouples | N/A | See EPA Reference Method 25A. |
| D. Monitoring Frequency | The combustion zone temperature is monitored | Quarterly observations | The stack test is performed within 180 days of startup of unit. |
| E. Data Collection Procedures | Temperatures are recorded once every minute to a strip chart. The chart recorder is electronically backed up on the data logger. Once each year data is saved to a dick or CD. | The 6-minute observation shall be documented and maintained for a period of at least 5 years. | See EPA Reference Method 25A, the results are reported to the permitted authority. |
| F. Averaging Period | 6-minute average | N/A | N/A |

## SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 12 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

**[For Areas I, II, V, and VI]**

The *fuel burning units* are subject to the following requirements: COMAR 26.11.09.05A(1), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

**[For Distillate Fuel Oil]**

COMAR 26.11.09.07A(1)(c), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with sulfur content by weight in excess of 0.3 percent.

(2) No. 2 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05B(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05B(3), Emissions During Operating Mode: The Permittee may not cause or permit the

discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05B(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes

(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05B(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(3) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(4) No. 15 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The *affected units* including EU3-5 are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Annual records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. 30 Storage of lubricating oils;

(c) No. 7 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(d) No. >100 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(6) ✓ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(7) ✓ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(8) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(9) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(10) ✓ Potable water treatment equipment, not including air stripping equipment;

(11) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(12) ✓ Laboratory fume hoods and vents;

*For the following, attach additional pages as necessary:*

(13) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| Jun-89 | Drying | 126 | 2555 | 6-0041 | Insig | - | atmos | E | |
| Nov-95 | Drying | 2328 | | 6-0041 | Insig | VOC | atmos | E | |
| Jan-02 | Forming | 62347 | | 6-0104 | Insig | PM | fugitive | E | 137 |
| Nov-02 | Forming | 62924 | | 6-0104 | Insig | PM | fugitive | E | 135 |
| Jun-89 | Forming | 447 | | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-89 | Forming | 1304 | 241 | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-89 | Forming | 1322 | | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-89 | Forming | 1323 | | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-92 | Forming | 1949 | | 6-0041 | Insig | VOC | fugitive | E | |
| Dec-07 | Forming | 1991534 | | 6-0275 | Insig | VOC | fugitive | E | |
| pre-1989 | Forming | 976 | | 7-0045 | Insig | VOC | fugitive | E | 26 |
| pre-1989 | Forming | 1266 | | 7-0045 | Insig | VOC | fugitive | E | 26 |
| pre-1990 | Forming | 2052 | | 6-0041 | Insig | VOC | fugitive | E | 91 |
| pre-1990 | Forming | 2101 | | 6-0041 | Insig | VOC | fugitive | E | 129 |
| pre-1990 | Forming | 1376 | | 7-0045 | Insig | VOC | fugitive | E | 199 |
| pre-1990 | Forming | 2014 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1990 | Forming | 2069 | | 7-0045 | Insig | VOC | fugitive | E | 28 |
| pre-1990 | Forming | 2371 | | 7-0045 | Insig | VOC | fugitive | E | 139 |
| Jan-85 | Misc | 5800 | | 6-0162 | Insig | VOC | atmos | E | 63 |
| pre-1990 | Misc | 0 | | 6-0104 | Insig | PM | atmos | E | |
| | Misc | 2149 | 2037 & others | 7-0045 | Insig | VOC | fugitive | E | |
| Mar-03 | Shaping | 6044 | | 7-0045 | Insig | COMB | atmos | P | |
| Oct-04 | Shaping | 0 | | 7-0045 | Insig | VOC | atmos | E | 6 |
| pre-1989 | Shaping | 853 | | 7-0045 | Insig | VOC | atmos | E | 5 |
| pre-1989 | Shaping | 982 | | 7-0045 | Insig | VOC | atmos | E | 18 |
| pre-1989 | Shaping | 1425 | | 7-0045 | Insig | VOC | atmos | E | 98 |
| pre-1989 | Shaping | 1761 | | 7-0045 | Insig | VOC | atmos | E | 35, 36 |

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| Mar-05 | Shaping | 2180 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1990 | Shaping | 1693 | | 6-0041 | Insig | VOC | fugitive | E | 116 |
| | Shaping | 60265 | | 6-0041 | Insig | - | atmos | P | 175 |
| Jul-02 | Shaping | 45159 | | 6-0104 | Insig | PM | atmos | E | 128 |
| pre-1989 | Shaping | 242 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1989 | Shaping | 244 | | 7-0045 | Insig | VOC | fugitive | E | |
| | Shaping | 2310 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1990 | Shaping | 2344 | | 7-0045 | Insig | VOC | atmos | E | 10 ,89 |
| 2003 | Shaping | 61670 | | 7-0045 | Insig | VOC | atmos | E | 15 |

(14) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| Dec-07 | Conditioning | 0 | | 7-0045 | Insig | - | atmos | E | |
| Mar-07 | Conditioning | 0 | | 7-0045 | Insig | - | atmos | E | |
| pre-1990 | Conditioning | 2166 | | 7-0045 | Insig | - | atmos | E | 67 |
| pre-1990 | Conditioning | 2413 | | 7-0045 | Insig | - | atmos | E | 61 |
| pre-1990 | Conditioning | 2443 | | 7-0045 | Insig | - | atmos | E | 120 |
| pre-1990 | Conditioning | 2444 | | 7-0045 | Insig | - | atmos | E | 118 |
| pre-1990 | Conditioning | 2445 | | 7-0045 | Insig | - | atmos | E | 119 |
| Aug-82 | Drying | 963 | | 6-0130 | Insig | VOC | atmos | E | 141 |
| pre-1990 | Drying | 2211 | | 6-0130 | Insig | VOC | atmos | E | 23 |
| pre-1990 | Drying | 2545 | | 6-0130 | Insig | VOC | atmos | E | 140 |
| pre-1990 | Misc | 0 | | 7-0045 | Insig | VOC | atmos | E | 8 |
| | Misc | 5084 | | n/a | 3-5 | VOC | fugitive | - | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-99 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-85 | Misc | 0 | | n/a | Insig | PM | atmos | E | 62 |
| May-07 | Shaping | 0 | | 7-0045 | Insig | - | atmos | E | |
| 2002 | Shaping | 2411 | | 7-0045 | Insig | VOC | atmos | E | |
| 3/6/2007 | StackOnly | 0 | | n/a | exempt | VOC | fugitive | E | 200 |
| Aug-07 | Tank | BAYCH-600 TK1 | | n/a | 4-1 | VOC | atmos | - | |
| Aug-07 | Tank | BAYCH-600 TK2 | | n/a | 4-1 | VOC | atmos | - | |
| | Tank | FP Mezz #23 | | n/a | 4-1 | VOC | atmos | - | |
| pre-1990 | Tank | TK1709-01 | | n/a | 4-1 | VOC | atmos | - | 404 |
| pre-1990 | Tank | TK1709-02 | | n/a | 4-1 | VOC | atmos | - | 405 |
| pre-1990 | Tank | TK2453-03 | | n/a | 4-1 | VOC | atmos | - | 406 |
| pre-1991 | Tank | TK2542-04 | | n/a | 4-1 | VOC | atmos | - | 407 |
| pre-1993 | Tank | TK2542-05 | | n/a | 4-1 | VOC | atmos | - | 408 |
| pre-1992 | Tank | TK2542-06 | | n/a | 4-1 | VOC | atmos | - | 409 |
| pre-1990 | Tank | TKno-name | | n/a | 4-1 | VOC | atmos | - | 410 |

## SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

   (b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

   (c) COMAR 26.11.09.10 - Requirements to Burn Used Oil and Waste Combustible Fluid as Fuel.
   A. General Requirements.
   "(1) A person who proposes to burn used oil or waste combustible fluid in an installation shall submit the following information to the Department:
   (a) A description of, and the location of, each fuel-burning equipment or other installation in which the used oil or WCF is to be burned and the rated heat input capacity of each;
   (b) The type and amount of fuel currently being used in each installation and the gallons of used oil or WCF expected to be burned annually;
   (c) The maximum percentage of used oil or WCF to be burned as fuel in each installation; and
   (d) An analysis by an independent laboratory of a representative sample of the used oil or WCF, which shall include the concentration of each of the materials listed in §B of this regulation, the PCB concentration, and the flash point.
   (2) A person may burn on-specification used oil in any installation upon submitting the information required in §A(1) of this regulation.
   (3) A person who is burning used oil or WCF under a current approval issued by the Department may continue to burn the approved material if:

(a) The person registers the equipment that is burning the used oil or WCF by submitting the information required in §A(1) of this regulation; and
(b) The used oil or WCF is being burned in an authorized installation.
(4) A person who proposes to burn off-specification used oil or WCF in an installation other than a space heater, as provided in 40 CFR §279.23, is subject to the permit or registration requirements in COMAR 26.11.02.
(5) A person who receives a permit or registration to burn used oil or WCF shall burn only the materials authorized in the permit or registration.
(6) A person may burn off-specification used oil and waste combustible fluid only in those installations listed at 40 CFR §279.12(c).
B. Specifications for Used Oil.
(1) Except as provided in §B(2) of this regulation, used oil specifications are as follows:

| Material | Allowable Level |
|---|---|
| (a) Lead | 100 ppm |
| (b) Total halogens | 4,000 ppm |
| (c) Arsenic | 5 ppm |
| (d) Cadmium | 2 ppm |
| (e) Chromium | 10 ppm |
| (f) Flash point | 100° F minimum |

(2) For used oil that does not satisfy the rebuttable presumption for halogens at 40 CFR 279.10(b)(1)(ii) and 279.63, the maximum allowable level for halogens may not exceed 1,000 ppm.
C. Requirements for Burning Used Oil or WCF Containing PCB.
(1) Used oil or WCF containing quantifiable levels of PCB (2ppm) or greater but less than 50 ppm may be burned only in those installations listed at 40 CFR §279.12(c) or 40 CFR 761.
(2) Used oil or WCF containing PCB with a concentration of 50 ppm or greater is hazardous waste."

(d) COMAR 26.11.15.05 - Control Technology Requirements.
"A. New or Reconstructed Installations. A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated, any new installation or source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(e) COMAR 26.11.15.06 - Ambient Impact Requirement.

A. Requirements for New Installations, Sources, or Premises.
(1) Except as provided in §A(2) of this regulation, a person may not construct, modify, or operate, or cause to be constructed, modified, or operated, any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health.
(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07 and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07.

2. Record Keeping and Reporting:
The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:
(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

# PART 70 OPERATING PERMIT FACT SHEET
# W. L. GORE & ASSOCIATES, INC.
# CHERRY HILL
# 2401 SINGERLY ROAD
# ELKTON, MD 21921
# PART 70 OPERATING PERMIT NO. 24-015-00079 Draft 2008

## BACKGROUND

W. L. Gore & Associates, Inc. – Cherry Hill facility is located at 2401 Singerly Road in Cecil County, Maryland. W. L. Gore & Associates, Inc. is a worldwide manufacturing corporation with headquarters in Newark, Delaware. The Cherry Hill plant operations utilize Fluoropolymer material (FPM) forming and stretching equipment. The primary SIC for this facility is 3087.

The following table summarizes the actual emissions from W.L. Gore – Cherry Hill Plant based on its Emission Certification Report.

**Table 1: Actual Emissions**

| Year | $NO_X$ (TPY) | $SO_X$ (TPY) | $PM_{10}$ (TPY) | CO (TPY) | VOC (TPY) | HAPs |
|---|---|---|---|---|---|---|
| 2006 | 8 | 4 | 0.5 | 1.3 | 12 | 0 |
| 2005 | 8 | 4 | 0 | 1 | 14 | 0 |
| 2004 | 7 | 3 | 0 | 1 | 16 | 0 |
| 2003 | 7 | 3 | 0 | 1 | 13 | 0 |

The major source threshold for triggering Title V permitting requirements in Cecil County is 25 tons per year for $NO_X$, 25 tons per year for VOCs, and 100 tons per year for any other criteria pollutants. The facility's potential to emit VOC emissions are greater than the major source threshold, therefore, W. L. Gore & Associates, Inc. – Cherry Hill Plant is required to obtain a Title V-Part 70 Operating Permit under COMAR 26.11.03.01.

The Department on May 31, 2002 received the Part 71 permit application for W. L. Gore & Associates, Inc. – Cherry Hill Plant. An administrative completeness review was conducted and the application was deemed to be administratively complete. A letter was sent to W.L. Gore – Cherry Hill Plant on July 16, 2002, granting an application shield. The Part 71 permit application will serve as a revised Part 70 permit application for the issuance of this Part 70 permit.

## CAM Applicability

W.L. Gore & Associates, Inc.-Cherry Hill conducted a Compliance Assurance Monitoring (CAM) analysis for the facility and determined that certain Emission Units: EU3-1, EU3-2, EU3-3, EU3-4 is subject to the (CAM) Rule 40 CFR Subpart 64.

## EMISSION UNIT IDENTIFICATION

The Cherry Hill Plant has identified the following emission units as being subject to the Title V permitting requirements and having applicable requirements.

**Table 2: Emission Unit Identification**

| Emissions Unit Number | MDE Registration Number | CH Number | Emissions Unit Description | Date of Installation |
|---|---|---|---|---|
| EU 1-1 Particulate Matter Emitting Units | 6-0104 | 63203 | Mixing and Compounding Area (Filled Products front end controlled by baghouse | 05/2001 & 07/2002 |
| | | 1931985 | Mixing and Compounding Area – fugitive emissions. | 08/2002 |
| EU 2-1 Boilers | 4-0223 & 4-0224 | | Two (2) Burnham No.2 fuel oil/propane fired boilers each rated at 9.45 million Btu per hour heat input and equipped with low $NO_x$ burners. Boilers modified on February 8, 2008 to burn used oil and waste combustible fuels. | 12/2006 Modified 2/8/08 |
| | 4-0156 | 5456 | One Weil McLain No. 2 fuel oil boiler rated at 4.9 million Btu per hour heat input. (Boiler #1). Boiler modified on February 8, 2008 to burn used oil and waste combustible fuels | 03/1985 |
| | 4-0200 | 2594 | One Weil McLain No. 2 fuel oil boiler rated at 8.6 million Btu per hour heat input. (Boiler #3). Boiler modified on February 8, 2008 to burn used oil and waste combustible fuels | 11/1997 |
| EU2-2 Emergency Generator | 9-0169 | | One (1) Onan 1200 bhp *(800 kW)* diesel emergency generator | 12/2006 |
| EU 3-1 Natural FPM Product Area vented through the oxidizer control system | 6-0102 | 2203 | R&D Wing (TD1) vented to the oxidizer control system and atmosphere. | 01//1995 |
| | 6-0100 | 2208 | Truck drying oven located in the FPM Area vented to an oxidizer control system and to the atmosphere. | 09/1994 |
| | 7-0045 | 1045, 1314, 1632,* 2056, 1381 | Five (5) Drum dryers located in the FPM Area vented to the oxidizer control system and to the atmosphere. | Pre 1990 |
| | 6-0275 | 1899969 | Dryer-Med tenter. | 08/2007 |
| | 6-0260 | 1316 | One dryer vented to an oxidizer control system. | Pre-1990 |
| EU 3-2 Filled FPM Products Area vented through the oxidizer | 6-0126 | 2383 | Oven (TD2) located in the filled area vented to the oxidizer control system and to the atmosphere. | 06/1996 |
| | 6-0276 | 2404 | Oven (TD3) located in the FPM area vented to the oxidizer control system and to the atmosphere. | 07/1997 |

| Emissions Unit Number | MDE Registration Number | CH Number | Emissions Unit Description | Date of Installation |
|---|---|---|---|---|
| control system | 6-0131 | 2204 | Oven (GT7) located in the R&D area vented to the oxidizer control system and to the atmosphere. | 09/1996 |
| | 6-0279 | 2615 | R&D oven vented to an oxidizer control system. | 05/1999 |
| EU 3-3 FPM Processing Area vented to atmosphere | 6-0073 | 2573 | One (1) drying oven in FP and vented to the atmosphere. | 01/1999 |
| | 6-0130 | 0685, 2281, 2260, 2505 | Four (4) electric ovens: Three (3) located in the Resin area Lab; and one in the Gen Lab, all vented to the atmosphere. | 08/1982, 07/1996 & 09/1999 |
| | 6-0041 | 2365 & 2366 | Two (2) R&D ovens located in the Filled Product area vented to the atmosphere. | 07/1992 & 10/2003 |
| EU 3-4 Ovens vented to Oxidizer control system | 6-0173 M | 60564 | One (1) batch-drying oven vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 12/1999 |
| | | 2439 & 2440 | Two (2) batch-drying ovens vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 03/1999 |
| | | 2597 & 2598 | Two (2) batch-drying ovens vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 02/2000 |
| | | 2369, 60535, 62581 | Oxidizer Control System consisting of Willie, Sara & Tec. | 06/1996;03/1999; 01/2002 |
| | 6-0278 | 60648 | One Rover dryer vented to the oxidizer control system and vented to the atmosphere. | 01/1999 |
| | 6-0192 | 62177 | One (1) batch-drying oven vented to the oxidizer control system to control VOC emissions and vented to the atmosphere. | 04/2002 |
| EU 3-5 | | PM5084 | Cold Maintenance Degreaser (30.5 gallon capacity). **See Insignificant Activity List** | |

## AN OVERVIEW OF THE PART 70 PERMIT

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Upon issuance of the Part 70 Permit, the Part 70 Permit supercedes the facility's current State Permit to Operate. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

## REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

**Emission Units: EU 1-1**
**Particulate Matter Emitting Units (6-0104 M)**
Mixing and Compounding Area - Filled Products front end controlled by baghouse.
Mixing and Compounding Area – Fugitive emissions

Note: These installations are minor sources of particulate matter. The emission certification for 2006 reported 0.136tons of PM.

## Applicable Standards and limits:

A. **Control of Visible Emissions**
COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – General Exception. "The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

**Compliance demonstration:**
The Permittee shall conduct a monthly 6-minute visual observation of the baghouse exhaust. The visual observation must be conducted while the baghouse is in operation. If no visible emissions are observed in six consecutive monthly observations from the baghouse exhaust, the Permittee may decrease the frequency of visual observations from monthly to quarterly for the baghouse exhaust. If visible emissions are observed during any quarter visual observation, the Permittee must resume the observation of the baghouse exhaust on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly visual observations. If visible emissions are observed during any observation, the Permittee must conduct an 18-minute test of opacity in accordance with Method 9. The Method 9 test must begin within 24-hours of any observation of visible emissions. The Permittee shall maintain on site a log of the dates and results of visible emissions observations for a period of at least 5 years. The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". **[Reference: COMAR 26.11.03.06C]**

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B. **Control of Particulate Matter Emissions**
COMAR 26.11.06.03B(1) – Particulate Matter from Confined Sources. "A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/scfd (115 kg/dscm)."

**Compliance demonstration:**
The Permittee shall develop and maintain a preventive maintenance plan for the baghouse that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the time frames established in the plan and shall maintain a log with records of the dates and description of the maintenance that was performed. The Permittee shall maintain a copy of the preventive maintenance plan and a record of the dates of and description of maintenance activity performed. The Permittee shall maintain records of the baghouse malfunctions and the corrective actions taken to bring into proper operation. The Permittee shall submit a copy of the preventive maintenance plan,

records of maintenance activities and corrective actions taken upon request. **[Reference: COMAR 26.11.03.06C].**

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**Emission Units: EU 2-1**
**Boilers**
Two (2) Burnham No.2 fuel oil/propane fired boilers each rated at 9.45 million Btu per hour heat input and equipped with low $NO_x$ burners. (Boilers #4 & #5) [4-0223 & 4-0224]
One (1) Weil McLain No. 2 fuel oil boiler rated at 4.9 million Btu per hour heat input. (Boiler #1) [4-0156]
One (1) Weil McLain No. 2 fuel oil boiler rated at 8.6 million Btu per hour heat input. (Boiler #3) [4-0200]

The Permittee applied and was issued a modification to the boilers on February 8, 2008 to burn used oil and waste combustible fuels.

The following boilers were removed since the issuance of the initial part 70 operating permit: Two (2) boilers: one (1) 2.9 million Btu per hour heat input (CH5457, PTC#4-0178) removed in 2007 and one (1) 1.2 million Btu per hour heat input (CH5455, PTC#4-0152) removed in 2005.

**Note:** For Control of Particulate Matter: "The requirements in Figure 1 and 2 of this chapter do not apply to fuel burning equipment burning gas or distillate oil." [Reference: COMAR 26.11.09.06A(3)(c)]

## Applicable Standards and limits:

A. **Control of Visible Emissions**
COMAR 26.11.09.05A(1) - Fuel Burning Equipment. "A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.09.05A(3) - Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period."

**Compliance demonstration:** - The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. The Permittee shall maintain an operations manual and preventive maintenance plan, and a log of maintenance performed that relates to combustion performance. The Permittee shall report incidents of visible emissions in accordance with permit condition 4 of Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". The basis for these monitoring, record keeping, and reporting requirements is the Department's authority to create periodic monitoring requirements. **[Reference: COMAR 26.11.03.06C].**

*Rationale for Periodic Monitoring* - Boilers that burn No.2 fuel oil with a rated heat input capacity of less than 10 MM Btu/hr typically never have visible emissions if properly operated and maintained. Boilers in this size range are set up to operate in an automatic mode without oversight of an operator. The completion of annual preventative maintenance as recommended by the boiler manufacturer, focusing on combustion performance, is sufficient to maintain compliance with the no visible emissions requirement. Even though there is not a specific schedule to perform observations of the stack emissions, the Permittee is required

under the general reporting requirement for excess emissions and deviations to report incidents when visible emissions exceed 20 percent opacity.

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B. **Control of Sulfur oxides Emissions.**
COMAR 26.11.09.07A(1)(c). Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: Distillate fuel oils, 0.3 percent."

**Compliance demonstration**: The Permittee shall obtain a certification from the fuel supplier with each shipment indicating that the oil complies with the limitation on the sulfur content of fuel oil. The Permittee shall retain fuel supplier certifications of sulfur content in fuel. The Permittee shall report fuel supplier certifications of sulfur content in fuel to the Department upon request. The basis for these monitoring, records keeping, and reporting requirements is the Department's authority to create periodic monitoring requirements. **[Reference COMAR 26.11.03.06C]**.

*Rationale*: The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil.

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C. **Operational Limits**:
The boilers shall burn No. 2 fuel oil, used oil or waste combustible fluids only. **[Reference: MDE Permit to Construct Nos. 015-0079-4-0223 & 4-0224, 4-0156, & 4-0200 Part C(2) issued February 8, 2008]**

**Compliance Demonstration:** The Permittee is required to maintain records of the types and quantity of fuel burned to support the annual emissions certification report (permit condition 8 of Section III, Plant Wide Conditions "Emissions Certification Report). The annual certification report must contain the type, quantities, and analyses of all fuels burned. No additional requirements are needed to show compliance with this operational limitation.

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**Emission Units: EU2-2**
**Emergency Generator**
One (1) Onan 1200 bhp *(800 kW)* diesel emergency generator. [9-0169]

## Applicable Standards and limits:

A. **Control of Visible Emissions**
COMAR 26.11.09.05B - Stationary Internal Combustion Engine Powered Equipment
"(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
(3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
(4) Exceptions.
(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
(b) Section B(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
(i) Engines that are idled continuously when not in service: 30 minutes;
(ii) All other engines: 15 minutes.
(c) Section B(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

**Compliance Demonstration:**
The Permittee shall properly operate and maintain the emergency generator in a manner to prevent visible emissions. The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Reference: COMAR 26.11.03.06C]** The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"

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B. **Control of Sulfur Oxides Emissions**
COMAR 26.11.09.07A(1)(c). Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: Distillate fuel oils, 0.3 percent."

**Compliance Demonstration:**
The Permittee shall obtain a certification from the fuel supplier with every shipment indicating that the oil complies with the limitation on the sulfur content of fuel oil. [Reference: COMAR 26.11.03.06C]. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: COMAR 26.11.09.07C].

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**Operational Limit**
The emergency diesel generator shall be used for emergency use only and shall not operate more than 500 hours a year, unless the Permittee obtains prior written approval from the Department. [Reference; Permit to construct 9-0169, Part D(2

**Compliance Demonstration:**
The Permittee shall maintain a log for the emergency generator indicating the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e. maintenance or operational testing, power outage, etc.) [Reference: Permit to construct 9-0169, Part E(1)]. The Permittee shall maintain logs on site for at least five (5) years and make available to the Department upon request. [Reference; Permit to construct 9-0169, Part E(2)] The Permittee shall submit a record of the logs with the annual emissions certification report. See permit condition 8 of Section III.

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**Emission Units: EU 3-1, EU 3-2, EU 3-3 & EU 3-4**

EU 3-1 - Natural FPM Product Area vented through the oxidizer control system
EU3-2 - Filled FPM Products Area vented through the oxidizer control system.
EU3-3 - FPM Processing Area vented to atmosphere.
EU3-4 - Ovens vented to Oxidizer control system.

Please Note: The oxidizer control system (OCS) includes the following oxidizers: SARA (oxidizer #1), T-Ox (oxidizer #2) and WILLIE (oxidizer #3).
The facility-conducted performance testing on the oxidizers as follow:
T-Ox (installed 6/1996) - July 1998 which resulted in 99.10 percent VOC destruction and removal efficiency;

WILLIE (installed 3/1999) – February 2002 which resulted in a VOC destruction and removal efficiency of 98 percent. Again in March 2007 which resulted in a VOC destruction and removal efficiency of 99.2 percent.
SARA (installed 1/2002) – August 12 & 13, 2002 which resulted in a VOC destruction efficiency of 99.19 percent.
The OCS operates in a lead-lag fashion. Willie acts as the lead oxidizer and handles most of the load, most of the time, with SARA in standby mode and Tec standby/shutdown mode (off-line and cool). As Willie approaches maximum capacity, SARA begins to ramp up to the set point combustion temperature. Tec is used during emergency situations, and as backup when maintenance is required on Willie or SARA, and for additional control as needed.

The following permits to construct were updated/modified to reflect that the Oxidizer Control System (OCS) controls the emissions from the process unit not one specific thermal oxidizer or re-registered to reflects the addition of the OCS for emission control since the issuance of the Title V permit: CJS-Truck dryer (CH#2208, **PTC #6-0100**); Dryer TD1 (CH#2203, **PTC #6-0102**); TD2 (CH#2383, **PTC #6-0126**); the Dryer-GT7 (CH#2204, **PTC #6-0131**); Five FP dryers (CH#2439, CH#2440, CH#2597, CH#2598, CH#60564, **PTC #6-0173**); FP Rapid Proto R&D oven (CH#62177, **PTC #6-0192**); Five Drum dryers (CH#1045, CH#1314, CH#1381, CH#1632, CH#2056, **PTC #7-0045**); TD3 dryer (CH#2404, **PTC #6-0276**); Rover (CH#60648, **PTC #6-0278**); Dryer (CH#1316, **PTC#6-0260**); R&D Oven (CH#2615, **PTC#6-0279**).

The following processes were removed: Tape treatment and drying oven CH#2642 – removed 2002; Three powder-drying ovens in the solvent tape drying area CH#61253, CH#61274, CH#61275 – removed in 2003; Three IHEI powder-drying ovens CH#61744, CH#61745, CH#61746 – removed in 2005.

## Applicable Standards and limits:

A. **Control of Visible Emissions.**

COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – General Exception. "The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

**Compliance Demonstration:**

The Permittee shall visually inspect the exhaust of the oxidizer control system at least monthly for a 6-minute period when the process lines are in operation and shall record the results of each observation. If no visible emissions are observed in six consecutive monthly observations, the frequency of visual observation may decrease from monthly to quarterly
If emissions are visible greater than 20 percent opacity from oxidizers, the Permittee shall perform the following unless it can be shown, through a Method 9 test, that the visible emissions are zero percent opacity:
(a) inspect all process and/or control equipment related to emission point;
(b) perform all necessary repairs and/or adjustments to the oxidizers, within 48 hours, so that visible emissions in the exhaust gases are less than 20 percent opacity; and
(c) document, in writing, the results of the inspections and the repairs and/or adjustments made to the oxidizers.
If visible emissions greater than 20 percent opacity have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily when the process lines are in

operation until the visible emissions have been reduced to less than 20 percent opacity. The Permittee shall keep records of the results of visual emission observations and document any incidence of visible emissions and corrective action taken by the Permittee. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Reports of Excess Emissions and Deviations" **[Reference: COMAR 26.11.03.06C]**

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B. **Control of VOC Emissions**

COMAR 26.11.19.30E – General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.
(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

**Compliance Demonstration:**

**COMAR 26.11.19.30 F** - Demonstration of Compliance: Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department.
The Permittee shall conduct performance testing of the primary oxidizer in the control system once during the 5-year term of the permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to proposed date of the test. The Permittee shall report results of the performance testing to the Department within 45 days after completion of the test. . **[Reference: COMAR 26.11.03.06C].**

The Permittee shall perform checks semi-annually on the thermocouples that monitor the temperatures to the oxidizer control system for accuracy. The Permittee shall keep records of the semi-annual checks of the thermocouples. The Permittee shall make the records of the thermo couple checks made available to the Department upon request **[Reference: COMAR 26.11.03.06C].**

For the oxidizer control system, the combustion chamber shall be:

(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating." **[Reference: COMAR 26.11.19.30E(2)].**

The Permittee shall demonstrate compliance with the interlock alarm system by continuously recording the damper position and the corresponding chamber temperature of the oxidizer control system.

The following records shall be kept on site for a period of at least five (5) years except for the design data, which shall be retained permanently. The records shall be made available to the Department on request:
(1) Permanent records for the life of the equipment of pertinent design data for the control device including manufacturer specifications and/or vendor guarantees for the control device and catalyst, catalyst requirements, design space velocity, operating limits, volume and configuration of catalyst required;
(2) Maintenance records of types and dates of work performed on the oxidizer control system;
(3) Records of the combustion chamber temperature, which shall be greater than 1400 °F any time a controlled process line is in operation; and
(4) Records of the results of destruction efficiency tests.
**[Reference: COMAR 26.11.19.30E(2)].**

**See CAM Plan (40 CFR Part 64) – Compliance Assurance Monitoring) for additional monitoring requirements.**

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**Emission Units: Facility-Wide**

## Applicable Standards and limits:

**Control of VOC Emissions**

A. COMAR 26.11.19.02I – Good Operating Practices, Equipment Cleanup and VOC Storage
"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.
(2) Good Operating Practices.
(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
(b) Good operating practices shall, at a minimum, include the following:
(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;
(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;
(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;
(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and
(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.
(c) A person subject to this regulation shall:
(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and
(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.
(3) Equipment Cleanup.
(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.
(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:
(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;
(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;
(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and
(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.
(4) VOC Storage and Transfer.
(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.
(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration**
The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**. The Permittee shall maintain:

1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**
2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C].**

Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request

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B. COMAR 26.11.19.16C - Control of VOC Leaks
General Requirements. "A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence."
COMAR 26.11.19.16D. Exceptions. "Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

**Compliance Demonstration**
The Permittee shall:

(1) Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for leaks at least once each calendar month;
(2) Tag any leak immediately with I.D. Number, the date VOC leak was discovered, and the name of the person who discovered the leak. The tag is to remain in place until the VOC leak is repaired;
(3) Take immediate action to repair/control all observed VOC leaks that can be repaired within 48 hours;
(4) Repair all other leaking components not later than 15 days after the VOC leak is discovered in accordance with COMAR 26.11.19.16C(4);
(5) If a replacement part is needed, it shall be ordered within 3 days after discovery of the leak and the VOC leak shall be repaired within 48 hours after receiving the part;
(6) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and
(7) Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown.

**[Reference: COMAR 26.11.19.16C and D]**
The Permittee shall:

(1) Maintain a log that includes the name of the person conducting the inspection, the date on which VOC leak inspection was made, the findings of the inspection, a list of VOC leaks by tag identification number, the date the part was ordered, and the date the VOC leak was repaired; and
(2) Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the leaks' occurrence.

**[Reference: COMAR 26.11.19.16C(6)]**
VOC Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.

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**Compliance Assurance Monitoring (CAM) Requirements [40 CFR Part 64] – Table 6 in Section IV of the Part 70 Permit.**

CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach established monitoring for the purpose of:

(1) Documenting continued operation of the control measures within ranges of specified indicators of performances (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements;
(2) Indicating any excursions from these ranges; and
(3) Responding to the data so that the causes of or caused excursions are corrected.

In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance; have pre-control emissions of at least 100 percent of the major source amount; and must not otherwise be exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emission unit.

The Pollutant specific emission units (PSEU) consist of dryers and ovens that support the FPM shaping and forming processes. The dryers and ovens are controlled by the Oxidizer Control System (OCS), which consist of three regenerative thermal oxidizers (RTO).

The dryers and ovens are used to drive off liquid VOC and/or water from the FPM materials or add certain properties to the product. The dryers and ovens are ducted to the OCS and operate, as a batch process and an as needed basis depending on production demands. All the dryers and ovens are interlocked with the OCS so that they can only operate when the OCS is at temperatures greater than 1400 °F. If temperatures approach 1400 °F, the alarm system will alert operators of low temperatures and if the low temperature is not corrected the OCS will go offline and production equipment will automatically be shutdown.

Rationale for selection of Performance Indicators

The OCS is used to reduce the VOC emissions generated from the evolution of VOCs from FPM materials. Production is considered batch process, so that production rate varies. Therefore it is difficult to relate the production rate of the VOC load vented to the OCS.

"VOC destruction efficiency depends upon design criteria (i.e. chamber temperature, residence time, inlet VOC concentration, compound type, and degree of mixing). Thermal destruction of most organic compounds occurs between 590 °C and 650 °C (1100 °F and 1200 °F)."

RTOs utilize the opening and closing of dampers to routinely change the direction of airflow over the beds. This change of airflow direction helps improve mixing of the gases and maintains uniform temperature across the beds. Incomplete combustion in the RTO may be indicated by visible emissions from the stack.

In accordance with 40 CFR 64.4(b)(1) - Presumptively acceptable monitoring includes: "Presumptively acceptable or required monitoring approaches, established by the permitting authority in a rule that constitutes part of the applicable implementation plan required pursuant to Title I of the Act, that are designed to achieve compliance with this part for particular pollutant-specific emissions units." COMAR 26.11.19 achieves the requirements of Title I of the Clean Air Act, Section110. State Implementation Plan (SIP) for VOC and requirement for this source is listed in COMAR 26.11.19.30E.

Rationale for selection of Indicator Ranges

Indicator ranges are based on requirements of the Maryland regulation and are supported by the stack testing data. VOC destruction of most organic compounds occurs between 1100 °F and 1200 °F. The minimum combustion zone temperature of these units is 1400 °F. Alarms are

sounded of the OCS substantially deviates from the set point of 1400 °F. Test methods used to determine VOC destruction efficiency includes EPA Test Method 25A.

See Table 6 for Monitoring Approach.

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## COMPLIANCE SCHEDULE

W. L. Gore & Associates, Inc – Cherry Hill Plant is currently in compliance with all applicable air quality regulations.

## TITLE IV – ACID RAIN

W. L. Gore & Associates, Inc – Cherry Hill Plant is not subject to the Acid Rain Program requirements.

## TITLE VI – OZONE DEPLETING SUBSTANCES

W. L. Gore & Associates, Inc – Cherry Hill Plant is subject to Title VI requirements.

## SECTION 112(r) – ACCIDENTAL RELEASES

W. L. Gore & Associates, Inc – Cherry Hill Plant is not subject to the requirements of Section 112(r).

## PERMIT SHIELD

W. L. Gore & Associates, Inc – Cherry Hill Plant did request a permit shield.

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## INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 12 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

**[For Areas I, II, V, and VI]**

The *fuel burning units* are subject to the following requirements:
COMAR 26.11.09.05A(1), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.
Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

**[For Distillate Fuel Oil]**
COMAR 26.11.09.07A(1)(c), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with sulfur content by weight in excess of 0.3 percent.

(2) No. 2 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05B(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05B(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05B(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes

(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05B(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(3) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(4) No. 15 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The *affected units* including **EU3-5** are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Annual records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. 30 Storage of lubricating oils;

(c) No. 7 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(d) No. >100 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(6) ✓ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(7) ✓ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(8) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(9) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(10) ✓ Potable water treatment equipment, not including air stripping equipment;

(11) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(12) ✓ Laboratory fume hoods and vents;

*For the following, attach additional pages as necessary:*

(13) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| Jun-89 | Drying | 126 | 2555 | 6-0041 | Insig | - | atmos | E | |
| Nov-95 | Drying | 2328 | | 6-0041 | Insig | VOC | atmos | E | |
| Jan-02 | Forming | 62347 | | 6-0104 | Insig | PM | fugitive | E | 137 |
| Nov-02 | Forming | 62924 | | 6-0104 | Insig | PM | fugitive | E | 135 |
| Jun-89 | Forming | 447 | | 6-0041 | Insig | VOC | fugitive | E | |

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| Jun-89 | Forming | 1304 | 241 | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-89 | Forming | 1322 | | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-89 | Forming | 1323 | | 6-0041 | Insig | VOC | fugitive | E | |
| Jun-92 | Forming | 1949 | | 6-0041 | Insig | VOC | fugitive | E | |
| Dec-07 | Forming | 1991534 | | 6-0275 | Insig | VOC | fugitive | E | |
| pre-1989 | Forming | 976 | | 7-0045 | Insig | VOC | fugitive | E | 26 |
| pre-1989 | Forming | 1266 | | 7-0045 | Insig | VOC | fugitive | E | 26 |
| pre-1990 | Forming | 2052 | | 6-0041 | Insig | VOC | fugitive | E | 91 |
| pre-1990 | Forming | 2101 | | 6-0041 | Insig | VOC | fugitive | E | 129 |
| pre-1990 | Forming | 1376 | | 7-0045 | Insig | VOC | fugitive | E | 199 |
| pre-1990 | Forming | 2014 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1990 | Forming | 2069 | | 7-0045 | Insig | VOC | fugitive | E | 28 |
| pre-1990 | Forming | 2371 | | 7-0045 | Insig | VOC | fugitive | E | 139 |
| Jan-85 | Misc | 5800 | | 6-0162 | Insig | VOC | atmos | E | 63 |
| pre-1990 | Misc | 0 | | 6-0104 | Insig | PM | atmos | E | |
| | Misc | 2149 | 2037 & others | 7-0045 | Insig | VOC | fugitive | E | |
| Mar-03 | Shaping | 6044 | | 7-0045 | Insig | COMB | atmos | P | |
| Oct-04 | Shaping | 0 | | 7-0045 | Insig | VOC | atmos | E | 6 |
| pre-1989 | Shaping | 853 | | 7-0045 | Insig | VOC | atmos | E | 5 |
| pre-1989 | Shaping | 982 | | 7-0045 | Insig | VOC | atmos | E | 18 |
| pre-1989 | Shaping | 1425 | | 7-0045 | Insig | VOC | atmos | E | 98 |
| pre-1989 | Shaping | 1761 | | 7-0045 | Insig | VOC | atmos | E | 35, 36 |
| Mar-05 | Shaping | 2180 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1990 | Shaping | 1693 | | 6-0041 | Insig | VOC | fugitive | E | 116 |
| | Shaping | 60265 | | 6-0041 | Insig | - | atmos | P | 175 |
| Jul-02 | Shaping | 45159 | | 6-0104 | Insig | PM | atmos | E | 128 |
| pre-1989 | Shaping | 242 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1989 | Shaping | 244 | | 7-0045 | Insig | VOC | fugitive | E | |
| | Shaping | 2310 | | 7-0045 | Insig | VOC | fugitive | E | |
| pre-1990 | Shaping | 2344 | | 7-0045 | Insig | VOC | atmos | E | 10 ,89 |
| 2003 | Shaping | 61670 | | 7-0045 | Insig | VOC | atmos | E | 15 |

(14) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| Dec-07 | Conditioning | 0 | | 7-0045 | Insig | - | atmos | E | |
| Mar-07 | Conditioning | 0 | | 7-0045 | Insig | - | atmos | E | |
| pre-1990 | Conditioning | 2166 | | 7-0045 | Insig | - | atmos | E | 67 |
| pre-1990 | Conditioning | 2413 | | 7-0045 | Insig | - | atmos | E | 61 |
| pre-1990 | Conditioning | 2443 | | 7-0045 | Insig | - | atmos | E | 120 |
| pre-1990 | Conditioning | 2444 | | 7-0045 | Insig | - | atmos | E | 118 |
| pre-1990 | Conditioning | 2445 | | 7-0045 | Insig | - | atmos | E | 119 |
| Aug-82 | Drying | 963 | | 6-0130 | Insig | VOC | atmos | E | 141 |
| pre-1990 | Drying | 2211 | | 6-0130 | Insig | VOC | atmos | E | 23 |

# W.L. GORE & ASSOCIATES, INC.
# CHERRY HILL PLANT
# PART 70 OPERATING PERMIT FACT SHEET

| Installation Date | General Category | CH nos. | 2nd CH nos. | Permit# | Title V EU# | EMIT | Control Device | Fuel | CH Emission Point |
|---|---|---|---|---|---|---|---|---|---|
| pre-1990 | Drying | 2545 | | 6-0130 | Insig | VOC | atmos | E | 140 |
| pre-1990 | Misc | 0 | | 7-0045 | Insig | VOC | atmos | E | 8 |
| | Misc | 5084 | | n/a | 3-5 | VOC | fugitive | - | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-07 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-99 | Misc | 0 | | n/a | Insig | COMB | atmos | P | |
| Jan-85 | Misc | 0 | | n/a | Insig | PM | atmos | E | 62 |
| May-07 | Shaping | 0 | | 7-0045 | Insig | - | atmos | E | |
| 2002 | Shaping | 2411 | | 7-0045 | Insig | VOC | atmos | E | |
| 3/6/2007 | StackOnly | 0 | | n/a | exempt | VOC | fugitive | E | 200 |
| Aug-07 | Tank | BAYCH-600 TK1 | | n/a | 4-1 | VOC | atmos | - | |
| Aug-07 | Tank | BAYCH-600 TK2 | | n/a | 4-1 | VOC | atmos | - | |
| | Tank | FP Mezz #23 | | n/a | 4-1 | VOC | atmos | - | |
| pre-1990 | Tank | TK1709-01 | | n/a | 4-1 | VOC | atmos | - | 404 |
| pre-1990 | Tank | TK1709-02 | | n/a | 4-1 | VOC | atmos | - | 405 |
| pre-1990 | Tank | TK2453-03 | | n/a | 4-1 | VOC | atmos | - | 406 |
| pre-1991 | Tank | TK2542-04 | | n/a | 4-1 | VOC | atmos | - | 407 |
| pre-1993 | Tank | TK2542-05 | | n/a | 4-1 | VOC | atmos | - | 408 |
| pre-1992 | Tank | TK2542-06 | | n/a | 4-1 | VOC | atmos | - | 409 |
| pre-1990 | Tank | TKno-name | | n/a | 4-1 | VOC | atmos | - | 410 |

**STATE ONLY ENFORCEABLE REQUIREMENTS**

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.09.10 - Requirements to Burn Used Oil and Waste Combustible Fluid as Fuel.

A. General Requirements.

"(1) A person who proposes to burn used oil or waste combustible fluid in an installation shall submit the following information to the Department:

(a) A description of, and the location of, each fuel-burning equipment or other installation in which the used oil or WCF is to be burned and the rated heat input capacity of each;

(b) The type and amount of fuel currently being used in each installation and the gallons of used oil or WCF expected to be burned annually;

(c) The maximum percentage of used oil or WCF to be burned as fuel in each installation; and

(d) An analysis by an independent laboratory of a representative sample of the used oil or WCF, which shall include the concentration of each of the materials listed in §B of this regulation, the PCB concentration, and the flash point.

(2) A person may burn on-specification used oil in any installation upon submitting the information required in §A(1) of this regulation.

(3) A person who is burning used oil or WCF under a current approval issued by the Department may continue to burn the approved material if:

(a) The person registers the equipment that is burning the used oil or WCF by submitting the information required in §A(1) of this regulation; and

(b) The used oil or WCF is being burned in an authorized installation.

(4) A person who proposes to burn off-specification used oil or WCF in an installation other than a space heater, as provided in 40 CFR §279.23, is subject to the permit or registration requirements in COMAR 26.11.02.

(5) A person who receives a permit or registration to burn used oil or WCF shall burn only the materials authorized in the permit or registration.

(6) A person may burn off-specification used oil and waste combustible fluid only in those installations listed at 40 CFR §279.12(c).

B. Specifications for Used Oil.

(1) Except as provided in §B(2) of this regulation, used oil specifications are as follows:

| Material | Allowable Level |
|---|---|
| (a) Lead | 100 ppm |
| (b) Total halogens | 4,000 ppm |
| (c) Arsenic | 5 ppm |
| (d) Cadmium | 2 ppm |

(e) Chromium 10 ppm

(f) Flash point 100° F minimum

(2) For used oil that does not satisfy the rebuttable presumption for halogens at 40 CFR 279.10(b)(1)(ii) and 279.63, the maximum allowable level for halogens may not exceed 1,000 ppm.

C. Requirements for Burning Used Oil or WCF Containing PCB.

(1) Used oil or WCF containing quantifiable levels of PCB (2ppm) or greater but less than 50 ppm may be burned only in those installations listed at 40 CFR §279.12(c) or 40 CFR 761.

(2) Used oil or WCF containing PCB with a concentration of 50 ppm or greater is hazardous waste."

(d) COMAR 26.11.15.05 - Control Technology Requirements.

"A. New or Reconstructed Installations. A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated, any new installation or source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(e) COMAR 26.11.15.06 - Ambient Impact Requirement.

A. Requirements for New Installations, Sources, or Premises.

(1) Except as provided in §A(2) of this regulation, a person may not construct, modify, or operate, or cause to be constructed, modified, or operated, any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health.

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07 and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07.

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

24-015-00079

015-0079


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

MDE

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101



Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary


OCT 14 2008

RECEIVED
OCT 20 2008
Air Protection Division (3AP00)

Mr. Bob McCleary
W.L. Gore & Associates, Inc.
Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921

Dear Mr. McCleary:

Enclosed please find your Permit to Construct for the Fabrics Membrane Line with dryer (FDL09) to be located at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the Fabrics Membrane Line with dryer (FDL09) that you have proposed to install/construct.

The addition of Fabrics Membrane Line with dryer (FDL09) qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the Fabrics Membrane Line with dryer (FDL09) in the application for the next renewal of the Part 70 permit.

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/aw

Enclosure

cc: Laramie Daniel with copy of permit
Cecil County Health Department
Jay Bozman with copy of permit
EPA Region III

C

**KEEP PERMIT AT SITE** **CONTROL NO. B-01981**

State of Maryland

Martin O' Malley
Governor

Shari T. Wilson
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

| | | | |
|---|---|---|---|
| PERMIT NO. | 015-0079-6-0285 | DATE ISSUED | October 14, 2008 |
| PERMIT FEE | $1,200.00 (PAID) | EXPIRATION DATE | In accordance with COMAR 26.11.02.04B |

**LEGAL OWNER & ADDRESS**

W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton MD 21921
Attn: Mr. Bob McCleary, Engineering

**SITE**

Cherry Hill Plant
SAME
CECIL County
AI# - 128

**SOURCE DESCRIPTION**

Installation of one (1) Fabrics Membrane Line with dryer (FDL09) and emissions controlled by the existing oxidizer control system.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**INDEX**

Part A - General Provisions
Part B - Applicable Regulations
Part C - Construction Conditions
Part D - Record Keeping and Reporting
Part E - Temporary Operating Permit Conditions

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:

(a) Application for Processing or Manufacturing Equipment (Form 5) received June 20, 2008 for FDL09 a FPM process line with dryer.

(b) Summary of Demonstrations for Meeting the Ambient Impact Requirement and T-BACT Requirements (Form 5A) received June 20, 2008 for FDL09 a FPM process line with dryer.

(c) Emissions Data (Form 5B) received June 20, 2008 for FDL09 a FPM process line with dryer.

(d) Supplemental Information [Narrative] received July 11, 2008 via email.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit, and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The addition of the FDL09 a FPM process line with dryer qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.01.07C - Report of Excess Emissions.

(1) In the case of any occurrence of excess emissions, expected to last or actually lasting for 1 hour or more, from any installation required by COMAR 26.11.02.13 to obtain a State permit to operate, the owner or operator shall report the onset and shall report the termination of the occurrence to the Department by telephone.

(2) Telephone reports of excess emissions shall include the following information:
   (a) The identity of the installation and the person reporting;
   (b) The nature or characteristics of the emissions (for example, hydrocarbons, fluorides);
   (c) The time of occurrence of the onset of the excess emissions and the actual or expected duration of the occurrence; and
   (d) The actual or probable cause of the excess emissions."

(b) COMAR 26.11.02.09A – Sources Subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required.

(c) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(d) COMAR 26.11.06.03B(1)(a) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(e) COMAR 26.11.19.02B - Method of Compliance.
"(1) Unless otherwise stated, compliance with the applicable emission standards established in this chapter is based on the VOC content of each coating or adhesive, as applied.
(2) A person subject to this chapter shall comply with the emission standards in this chapter by:
   (a) Applying low VOC coatings or adhesives that meet applicable standards;

(b) Using a control device that, when tested by approved test methods:
  (i) Complies with applicable emission reduction requirements, or
  (ii) Results in an emission reduction equal to or greater than the emission reduction that would have been achieved by complying with §B(2)(a) of this regulation;
(c) Complying with the operating conditions or equipment specifications established in the applicable regulation;
(d) For sources subject to VOC limits in coatings or inks or other similar products, reducing emissions by using water-based coatings, resins, inks, or similar products that contain less than 25 percent VOC by volume of the volatile portion of the product; or
(e) Using an alternative method of assessing compliance if:
  (i) The alternative method is approved by the Department,
  (ii) The resulting emissions are equal to or less than the emissions that would have been discharged by complying with emission standards,
  (iii) Adequate records are maintained to ensure enforceability, and
  (iv) The alternative compliance method is approved by the U.S. EPA as a revision to the State Implementation Plan."

(f) COMAR 26.11.19.02I - <u>Good Operating Practices, Equipment Cleanup, and VOC Storage.</u>
  (2)(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
  (b) Good operating practices shall, at a minimum, include the following:
    (i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;
(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;
(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and
(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:
(i) Establish good operating practices in writing;
(ii) Make the written operating practices available to the Department upon request; and
(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.
(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.
(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:
(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;
(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;
(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and
(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia.

(g) COMAR 26.11.19.16 – Control of VOC Equipment Leaks.

**C.** General Requirements. "A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipefittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

**D**. Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

(h) COMAR 26.11.19.30E - General Requirements for FPM Process Installations. "(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.

(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:

(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;

(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and

(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and

(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.

(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.

(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:

(a) Immediately enclosing all wet FPM during storage; and

(b) Covering dipping troughs when not in operation.

(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(i) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.13A – Sources Subject to State Permit to Operate. "Except for a source that is covered by a Part 70 permit, a person may not operate or cause to be operated any of the following sources without first obtaining, and having in current effect, a State permit to operate as required by this regulation: (28) Coating, decorating, and impregnating lines with integral drying ovens at which coatings or adhesives containing VOC are applied by automatic equipment to surfaces".

(b) COMAR 26.11.02.14D – Procedures for Obtaining State Permits to Operate and Permits to Construct Certain Sources and Permit to Construct Control Equipment on Existing Sources. "An application for a permit to construct may be submitted at any time. A complete application for an initial State permit to operate shall be submitted not later than 60 days before the source is to commence operating. A complete application for the renewal of a State Permit to Operate not later than 60 days before the expiration date of the permit. If a timely application for a renewal has been submitted, the current State Permit to Operate remains in effect until the Department makes a final decision to issue or deny the permit."

(c) COMAR 26.11.02.19C - Information Required to be Maintained by a Source.
(1) "The owner or operator of a source for which a permit to operate is required shall maintain records necessary to support the emission certification, including the following information:
(a) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
(b) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
(c) Amounts, types, and analyses of all fuels used;
(d) Emission data from continuous emission monitors that are required by this subtitle or EPA regulations, including monitor calibration and malfunction information;
(e) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment, including significant maintenance performed, malfunctions and downtime, and episodes of reduced efficiency of this equipment;
(f) Limitations on source operation or any work practice standards that significantly affect emissions; and

(g) Other relevant information as required by the Department.

(2) The logs and other records of information required by §C(1) of this regulation shall be retained for a period of 5 years and made available to the Department upon request.

(3) If the owner or operator of a source for which a permit to operate is required fails to maintain or provide the data required by this section, which the Department requests in order to verify the emissions during the previous calendar year, the annual emission-based fee for that source shall be based on the estimated allowable emissions, as defined in COMAR 26.11.01.01B(4), of that source, as determined by the Department."

(d) COMAR 26.11.02.19D. - Emission Certification.

(1) "The responsible official designated by the owner or operator of a source for which a permit to operate is required shall certify, as provided at Regulation .02F of this chapter, the actual emissions of regulated air pollutants from all installations at the plant or facility.

(2) Certification shall be on a form obtained from the Department and shall be submitted to the Department not later than April 1 of the year following the year for which certification is required.

(3) An emission certification submitted pursuant to this section and which contains all information required by COMAR 26.11.01.05-1, for $NO_x$ and VOC, satisfies the requirements of COMAR 26.11.01.05-1."

(e) COMAR 26.11.06.08 – Nuisance. "An installation or premises may not be operated or maintained in such a manner that nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(f) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

(g) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(h) COMAR 26.11.15.06A – Ambient Impact Requirement.

(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction Conditions

(1) The FDL09 a FPM process line with dryer shall be constructed in accordance with specifications included in the applications.

(2) Emissions from the dryer shall be controlled by the existing oxidizer control system.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Monthly record of material usage and hours of operation of the FDL09 a FPM process line.

(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.

(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

## PART E - TEMPORARY OPERATING PERMIT CONDITIONS

(1) This permit allows the Permittee to operate the FDL09 a FPM process line with dryer for a start-up period of 180 days after the initial start-up. This period shall be used to demonstrate compliance with applicable air quality regulations and permit to construct conditions. If the Permittee is unable to complete the compliance demonstration during this period, the Permittee shall submit to the Department a written request for extension to the start-up period at least 30 days before the end of the period.

(2) The Permittee shall operate the FDL09 a FPM process line with dryer in accordance with the permit to construct conditions and operating procedures as provided by the equipment vendor.

(3) Operating in accordance with terms and conditions expressed in Conditions (1) and (2) above does not authorize the Permittee to violate any rule or regulation nor create a nuisance or air pollution.

(4) The Permittee shall notify the Department in writing of the anticipated date of initial start-up of the fabric membrane line not less than 30 days prior to such date.

(5) The Permittee shall notify the Department in writing of the actual date of start-up of the fabric membrane line no later than 15 days after the initial start-up.

FDL09 (CH74817)

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

RECEIVED JUN 20 2008 By

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [x] Registration Update ❑ Initial Registration

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton MD 21921
City State Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

Bob M. McCleary, Engineering 6/17/08
Print Name and Title Date

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

| County No. | Premises No. |
|---|---|
| 01 5 | 0 0 7 9 |
| 1-2 | 3-6 |

| Registration Class | Equipment No. |
|---|---|
| 6 | 0285 |
| 7 | 8-11 |

| Data Year | Application Date |
|---|---|
| 0 8 | |
| 12-13 | |

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town State Zip ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| A | 08/2008 | 01//2009 | |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
**Fabrics Membrane Line with Dryer (FDL09), located in the Bay area of the plant**

**5. Workmen's Compensation Coverage** WA7-63D-004150-068 (Binder/Policy Number) 3/31/2009 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 0

**6B. Number of Stack/Emission Points Associated with this Equipment** 3

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [ ] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other [ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | A B C D E F |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS ELECTRIC (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [X] | | | 24 | 5 | 250 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent | (Total Seasons= 100%) |
|---|---|---|---|---|---|
| [X] | | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 | |

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) N
**BASED ON LEAD OXIDIZER IN OCS, (WILLIE)**
85

If not, then → 

| Height Above Ground (FT) | Inside Diameter at Top | Exit Temperature (°F) | Exit Velocity (FT/SEC) |
|---|---|---|---|
| 47 | 3.4 | 325 | 42.7 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)** **THIS IS WORST CASE ESTIMATE**
**Is any of this data to be considered confidential?** N (Y or N)

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**TOTAL**

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |

**TOTAL**

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| 2. VOC (after control) | | 3 | lbs | 13.2 | Tons |
| 3. | | | | | |
| 4. | | | | | |

**TOTAL**

FDL09 (CH74817)

**16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day**

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 41.4 | 0 |
| 177-122 | 123-128 | 129-134 |

**17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day**

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 12.6 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____

**Date Rec'd. State** 6/20/08

**Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____

**Reviewed by State** Date 8/27/08 By M. Gurley

**19. Inventory Date**

| Month/Year | Equipment Code | SCC Code |
|---|---|---|
| | | 3 0 8 9 9 9 9 9 |
| 171-174 | 175-177 | 178-185 |

tons of material processed

**20.**

| Annual Operating Rate | Maximum Design Hourly Rate | Permit to Operate Month | Transaction Date (MM/DD/YR) |
|---|---|---|---|
| | | | |
| 186-192 | 193-199 | 200-201 | 202-207 |

| Staff Code | VOC Code | SIP Code | Regulation Code | Confidentiality |
|---|---|---|---|---|
| | | | | |
| 208-210 | 211 212 | 213 214 | 215-218 | 219 |

**Point Description**

fabrics membrane line w/ dryer

220-238

**Action** 239

A: Add
C: Change

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By

CH74817, FDL09

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Blvd ● Baltimore, Maryland 21230
(410) 537-3230 ● 1-800-633-6101 ● www.mde.state.md.us
Air and Radiation Management Administration ● Air Quality Permits Program

# Summary of Demonstrations for Meeting the ambient impact Requirement (26.11.15.05) and the T-Bact Requirement (26.11.15.06)

DO NOT WRITE IN THIS SPACE

Company Name W.L.Gore & Associates, Inc. – Cherry Hill Plant

1. Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

| Emission Reduction Option | % Emission Reduction | COSTS Capital | COSTS Annual Operating |
|---|---|---|---|
| 1. Oxidizer Control System (OCS) which includes the following oxidizers | | | |
| Willie (OX#3) | 99.2% | | |
| SARA (OX#1 | 99.1% | | |
| T-Ox (OX#2) | 99.1% | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

2. Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

3. List screening levels and highest estimated off-site concentrations (ug/m$^3$) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged from the installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

| | Toxic Air Pollutant | CAS Number | SCREENING LEVEL(S) 1-HR | SCREENING LEVEL(S) 8-HR | SCREENING LEVEL(S) Annual | OFF-SITE CONCENTRATIONS 1-HR | OFF-SITE CONCENTRATIONS 8-HR | OFF-SITE CONCENTRATIONS Annual |
|---|---|---|---|---|---|---|---|---|
| 1 | PTFE | 9002-84-0 | - | - | - | - | - | - |
| 2 | Mineral Spirits | 64742-48-9 | - | 1200 | - | - | 362 | - |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |

☐ If unable to use a Screening Analysis, check the box and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B(12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B(2)).

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CH74817, FDL09

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ● Baltimore, Maryland 21230
(410) 537-3230 ● 1-800-633-6101 ● www.mde.state.md.us

**Air and Radiation Management Administration ● Air Quality Permits Program**

## Emissions Data

**Fill out one Form 5B for each stack or other emission point subject to the regulations (see the General Instructions for more detail).**

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc.- Cherry Hill

1. Number Identifying this Emission Point on Required Plot Plan _____
(If applicable, list company's internal I.D. CH74817 _____)

2. Brief description of Emission Point, Associated Equipment and Control Devices

Fabrics membrane line with Dryer (FDL09) controlled by the Oxidizer Control System (OCS)

3. Emission Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes/Hour | Hours/Day | Days/Week | Weeks/Year |
|---|---|---|---|---|---|
| | X | 60 | 24 | 7 | 52 |

Seasonal Variation: None X Winter %_____ Spring%_____ Summer%_____ Fall%_____

4. Stack Information **WILLIE Oxidizer**

Height above ground (ft): 47.24
Inside Diameter at top of round stack (ft): 3.4 ft
Exit Temperature (°F): 325 F
Height above structures (ft): _____
Dimensions at top of rectangular stack (ft): _____
Exit Velocity (ft/min): 0.711
Distance to Nearest Property Line (ft): 425
Gas Volume (acfm): 265

Dimensions of Building Stack is on (ft): Height 24 Length 500 Width 375

5. Control Devices Associated with this Stack or Emission Point

| Control Device | Number | Control Device | Number |
|---|---|---|---|
| 0. None | | 7. Elec. Precipitator | |
| 1. Simple Cyclone | | 8. Baghouse | |
| 2. Multiple Cyclone | | 9. Thermal Afterburner | ocs |
| 3. Spray Tower | | 10. Catalytic Afterburner | |
| 4. Absorption Tower | | 11. Other (specify) | |
| 5. Venturi Scrubber | | | |
| 6. Carbon Adsorber | | | |

6. Criteria Pollutant Emissions (attach supporting documentation)

| Criteria Pollutants | Design Capacity (lb/hr) | ESTIMATED EMISSIONS Projected (lb/hr) | Operations (1) (ton/year) |
|---|---|---|---|
| Particulate Matter | 0 | 0 | 0 |
| PM10 | 0 | 0 | 0 |
| Oxides of Sulfur | 0 | 0 | 0 |
| Oxides of Nitrogen | 0 | 0. | 0. |
| Carbon Monoxide | 0 | 0 | 0 |
| VOC (total) | 3 | 2.25 | 6.8 |
| Lead | 0 | 0 | 0 |

7. Toxic Air Pollutant Emissions (attach supporting documentation)

| | Toxic Air Pollutant (list all) | CAS Number | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected Operations (1) (lb/hour) | Projected Operations (1) (ton/year) | Used for Form 5A, Part 3 (2) (lb/hour) | Used for Form 5A, Part 3 (2) (ton/year) |
|---|---|---|---|---|---|---|---|
| 1 | Mineral Spirits | 64742-48-9 | 3 | 2.25 | 6.8 | 3 | 13.2 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.
(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxic regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

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**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
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# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address:<br>2401 Singerly Road | | |
| City:<br>Elkton | State:<br>MD | Zip[Code:<br>21921 |
| Telephone Number<br>(410) 398-6400 | | Fax Number<br>(410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager:<br>Mark A. Steimer, Sr. | Telephone Number:<br>(410) 398-6400 | Fax Number:<br>(410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues:<br>Peggy J. Horst | | Title:<br>Environmental Associate |
| Telephone Number<br>(410) 398-6400 | | E-Mail Address:<br>phorst@wlgore.com |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS**

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X _____ 6-17-08

SIGNATURE DATE

MARK A. STEIMER, SR.
PRINTED NAME

PLANT MANAGER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [x] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

Installation of a new Fabrics Membrane Line with Dryer (FDL09, CH74817) controlled by the existing Oxidizer Control System (OCS).

With the addition of FDL09 it is expected that VOC emissions will increase, however we have taken precautions to minimize emissions when possible.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

■ There will be a net increase in emissions.
List the projected actual facility-wide emissions increase (in tons) below:

PM10 0 NOx 0 VOC 6.8 SOx 0 CO 0

HAPs 0

☐ There will be a net decrease in emissions.
List the projected actual facility-wide emissions decrease (in tons) below:

PM10____ NOx____ VOC____ SOx____ CO____

HAPs____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3A. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.:

EU3-1

Date of proposed change (month/year): 8/2008

2. MDE Registration No.: (if applicable)

Application submitted with this Title V Modification. (Permit number to be determined)

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Fabrics Membrane Line with Dryer (FDL09) located in the Bay Area of the plant

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: n/a

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. Electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 11.4 SOx 3.0 VOC 11.2 PM10 0.8 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 11.4 SOx 3.0 VOC 18.0 PM10 0.8 HAPs 0

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Visible Emissions.**
COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring

A. The Permittee shall visually inspect the exhaust of the oxidizer control system at least monthly for a 6-minute period when the process lines are in operation and shall record the results of each observation. If no visible emissions are observed in six consecutive monthly observations, the frequency of visual observation may decrease from monthly to quarterly.
If emissions are visible greater than 20 percent opacity from oxidizer control system, the Permittee shall perform the following unless it can be shown, through a Method 9 test, that the visible emissions are zero percent opacity:
(a) inspect all process and/or control equipment related to emission point;
(b) perform all necessary repairs and/or adjustments to the oxidizers, within 48 hours, so that visible emissions in the exhaust gases are less than 20 percent opacity; and
(c) document, in writing, the results of the inspections and the repairs and/or adjustments made to the oxidizer control system.
If visible emissions greater than 20% opacity have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily when the process lines are in operation until the visible emissions have been reduced to less than 20 percent opacity. **[Reference: COMAR 26.11.03.06C]**

Testing:

A. None.

Record Keeping:

A. The Permittee shall keep records of results of visual emission observations and document any incidence of visible emissions and corrective action taken by the Permittee. **[Reference: COMAR 26.11.03.06C].**

Reporting:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations".

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.03B(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Particulate Matter**.
COMAR 26.11.06.03B(1) – Particulate Matter from Confined Sources. "A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/scfd (115 kg/dscm)."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall develop and maintain a preventive maintenance plan for the oxidizer control system that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the time frames established in the plan and shall maintain a log with records of the dates and description of the maintenance that was performed. **[Reference: COMAR 26.11.03.06C].**

Testing:

B. None.

Record Keeping:

B. The Permittee shall maintain a copy of the preventive maintenance plan and a record of the dates of and description of maintenance activity performed. The Permittee shall maintain records of the oxidizer control system malfunctions and the corrective actions taken to bring into proper operation. **[Reference: COMAR 26.11.03.06C].**

Reporting:

B. The Permittee shall submit a copy of the preventive maintenance plan, records of maintenance activities and corrective actions taken upon request. **[Reference: COMAR 26.11.03.06C].**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.19.30E

Briefly describe the Emission Standard/Limit or Operational Limitation:

C. **Control of Volatile Organic Compounds**
COMAR 26.11.19.30E – General Requirements for PTFE Installations.
(1) "A person who owns or operates a PTFE installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the PTFE installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates PTFE compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet PTFE during storage; and
(b) Covering dipping troughs when not in operation.

(6) A person who owns or operates a PTFE coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in E (2), (3), and (4) of this regulation."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

C. For the oxidizer control system, the combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the PTFE installation unless the approved control system is operating." [Reference: **COMAR 26.11.19.30E(2)].**
The Permittee shall perform checks semi-annually on the thermocouples that monitor the temperatures to the oxidizer control system for accuracy. **[Reference: COMAR 26.11.03.06C].**

Testing:

C. **COMAR 26.11.19.30 F.** – "Compliance with this regulation shall be demonstrated using the applicable

VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department." The Permittee shall conduct performance testing of the primary oxidizer in the control system once during the 5-year term of the permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to proposed date of the test.

Record Keeping:

C. The following records shall be kept on site for a period of at least five (5) years except for the design data, which shall be retained permanently. The records shall be made available to the Department on request:
(1) Permanent records, for the life of the equipment, of pertinent design data for the control device including manufacturer specifications and/or vendor guarantees for the control device and catalyst, catalyst requirements, design space velocity, operating limits, volume and configuration of catalyst required;
(2) Maintenance records of types and dates of work performed on the oxidizer control system;
(3) Records of the combustion chamber temperature, which shall be greater than 1400 °F any time a controlled process line is in operation; and
(4) Records of the results of destruction efficiency tests.
(5) The Permittee shall keep records of the damper position and corresponding chamber temperature on site for at least five years.
(6) The Permittee shall keep records of the semi-annual checks of the thermocouples on site for at least five years. **[Reference: COMAR 26.11.03.06C]**

Reporting:

C. The Permittee shall report results of the performance testing to the Department within 45 days after completion of the test.

The Permittee shall make the records of the thermo couple checks made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**
COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.
(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."
(2) Good Operating Practices.
(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
(b) Good operating practices shall, at a minimum, include the following:
(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;
(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;
(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;
(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and
(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.
(c) A person subject to this regulation shall:
(i) Establish good operating practices in writing;
(ii) Make the written operating practices available to the Department upon request; and
(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.
(3) Equipment Cleanup.
(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.
(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:
(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;
(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;
(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and
(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.
(4) VOC Storage and Transfer.
(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.
(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.16C

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Control of VOC Equipment Leaks.**
COMAR 26.11.19.16C - General Requirements.
"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

D. Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall:

(1) Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for leaks at least once each calendar month;

(2) Tag any leak immediately with I.D. Number, the date leak was discovered, and the name of the person who discovered the leak. The tag is to remain in place until the leak is repaired;

(3) Take immediate action to repair/control all observed leaks that can be repaired within 48 hours;

(4) Repair all other leaking components not later than 15 days after the leak is discovered in accordance with COMAR 26.11.19.16C(4);

(5) If a replacement part is needed, it shall be ordered within 3 days after discovery of the leak and the leak shall be repaired within 48 hours after receiving the part;

(6) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and

(7) Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown.

**[Reference: COMAR 26.11.19.16C and D]**

Testing:

None.

Record Keeping:

B. The Permittee shall:

(1) Maintain a log that includes the name of the person conducting the inspection, the date on which leak inspection was made, the findings of the inspection, a list of leaks by tag identification number, the date the part was ordered, and the date the leak was repaired; and

(2) Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the leaks' occurrence.

**[Reference: COMAR 26.11.19.16C(6)]**

Reporting:

B. Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 4. CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : | 2. Emissions Point No.: |
|---|---|
| EU 3-1, EU 3-2, EU 3-3 & EU 3-4 | Oxidizer Control System |

3. Type and Description of Control Equipment:

1. Oxidizer Control System (OCS)
   which includes the following oxidizers
   Willie (OX#3) 98.5% VOC reduction Stack Test date Dec 2001
   SARA (OX#1 99.1% VOC reduction Stack Test date Aug 2002
   T-Ox (OX#2) 99.1% VOC reduction Stack Test date June 1998

| 4. Pollutants Controlled: | 5. Control Efficiency: |
|---|---|
| VOC | OCS<br>Willie (OX#3) 98.5%<br>SARA (OX#1) 99.1%<br>T-Ox (OX#2) 99.1% |

6. Capture Efficiency:

1. 99.3% capture, approximately

13:16:24

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Willie 2008 FDL09 Dryer CH74817

SIMPLE TERRAIN INPUTS:
SOURCE TYPE = POINT
EMISSION RATE (G/S) = .378000
STACK HEIGHT (M) = 14.3988
STK INSIDE DIAM (M) = 1.0363
STK EXIT VELOCITY (M/S)= 13.0028
STK GAS EXIT TEMP (K) = 435.9278
AMBIENT AIR TEMP (K) = 293.0000
RECEPTOR HEIGHT (M) = .0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 7.3152
MIN HORIZ BLDG DIM (M) = 129.5400
MAX HORIZ BLDG DIM (M) = 152.4000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 11.224 M**4/S**3; MOM. FLUX = 30.511 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | .0000 | 1 | 1.0 | 1.0 | 320.0 | 142.47 | 2.32 | 2.29 | NO |
| 100. | 17.93 | 4 | 15.0 | 15.8 | 4800.0 | 17.86 | 8.32 | 9.86 | HS |
| 200. | 10.69 | 4 | 15.0 | 15.8 | 4800.0 | 20.72 | 15.72 | 13.22 | HS |
| 300. | 8.749 | 4 | 15.0 | 15.8 | 4800.0 | 21.28 | 22.73 | 16.33 | HS |
| 400. | 7.933 | 4 | 10.0 | 10.6 | 3200.0 | 26.28 | 29.67 | 19.48 | HS |
| 500. | 7.161 | 4 | 8.0 | 8.4 | 2560.0 | 29.95 | 36.42 | 22.48 | HS |
| 600. | 6.497 | 4 | 8.0 | 8.4 | 2560.0 | 29.95 | 42.95 | 25.23 | HS |
| 700. | 5.809 | 4 | 8.0 | 8.4 | 2560.0 | 29.95 | 49.39 | 27.92 | HS |
| 800. | 5.374 | 4 | 5.0 | 5.3 | 1600.0 | 39.28 | 56.03 | 27.71 | NO |
| 900. | 5.212 | 4 | 5.0 | 5.3 | 1600.0 | 39.28 | 62.29 | 30.31 | NO |
| 1000. | 4.973 | 4 | 4.5 | 4.8 | 1440.0 | 42.04 | 68.58 | 33.05 | NO |
| 1100. | 4.706 | 4 | 4.5 | 4.8 | 1440.0 | 42.04 | 74.73 | 35.03 | NO |
| 1200. | 4.476 | 4 | 4.0 | 4.2 | 1280.0 | 45.50 | 80.93 | 37.17 | NO |
| 1300. | 4.253 | 4 | 4.0 | 4.2 | 1280.0 | 45.50 | 86.97 | 39.03 | NO |
| 1400. | 4.067 | 4 | 3.5 | 3.7 | 1120.0 | 49.94 | 93.11 | 41.13 | NO |
| 1500. | 3.889 | 4 | 3.5 | 3.7 | 1120.0 | 49.94 | 99.06 | 42.89 | NO |
| 1600. | 3.714 | 4 | 3.0 | 3.2 | 960.0 | 55.86 | 105.16 | 45.02 | NO |
| 1700. | 3.580 | 4 | 3.0 | 3.2 | 960.0 | 55.86 | 111.04 | 46.70 | NO |
| 1800. | 3.447 | 4 | 3.0 | 3.2 | 960.0 | 55.86 | 116.89 | 48.34 | NO |
| 1900. | 3.357 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 93.15 | 37.19 | NO |
| 2000. | 3.484 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 97.42 | 38.13 | NO |
| 2100. | 3.571 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 101.67 | 38.96 | NO |
| 2200. | 3.645 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 105.91 | 39.78 | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2300. | 3.708 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 110.14 | 40.59 | NO |
| 2400. | 3.760 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 114.35 | 41.39 | NO |
| 2500. | 3.802 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 118.55 | 42.18 | NO |
| 2600. | 3.836 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 122.73 | 42.96 | NO |
| 2700. | 3.861 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 126.90 | 43.73 | NO |
| 2800. | 3.879 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 131.06 | 44.49 | NO |
| 2900. | 3.891 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 135.20 | 45.24 | NO |
| 3000. | 3.897 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 139.33 | 45.99 | NO |
| 3500. | 3.856 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 159.80 | 49.58 | NO |
| 4000. | 3.741 | 5 | 1.0 | 1.1 | 10000.0 | 78.18 | 179.98 | 53.00 | NO |
| 4500. | 3.751 | 6 | 1.0 | 1.2 | 10000.0 | 66.05 | 133.32 | 35.76 | NO |
| 5000. | 3.749 | 6 | 1.0 | 1.2 | 10000.0 | 66.05 | 146.42 | 37.26 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 70. | 20.90 | 4 | 20.0 | 21.1 | 6400.0 | 15.47 | 6.03 | 8.45 | HS |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**********
*** REGULATORY (Default) ***
PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)
**********

| *** CAVITY CALCULATION - 1 *** | *** CAVITY CALCULATION - 2 *** |
|---|---|
| CONC (UG/M**3) = .0000 | CONC (UG/M**3) = .0000 |
| CRIT WS @10M (M/S) = 99.99 | CRIT WS @10M (M/S) = 99.99 |
| CRIT WS @ HS (M/S) = 99.99 | CRIT WS @ HS (M/S) = 99.99 |
| DILUTION WS (M/S) = 99.99 | DILUTION WS (M/S) = 99.99 |
| CAVITY HT (M) = 7.32 | CAVITY HT (M) = 7.32 |
| CAVITY LENGTH (M) = 42.96 | CAVITY LENGTH (M) = 41.77 |
| ALONGWIND DIM (M) = 129.54 | ALONGWIND DIM (M) = 152.40 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

**********
END OF CAVITY CALCULATIONS
**********

**********
*** SUMMARY OF SCREEN MODEL RESULTS ***
**********

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 20.90 | 70. | 0. |

**********
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**********

24-015-00079

015-0079


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

MDE

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary


NOV - 7 2008

RECEIVED

NOV 24 2008

Air Protection Division (3AP00)

Mr. Shawn Connery
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

Dear: Mr. Connery:

Enclosed please find your Permit to Construct for the replacement of the existing extruder [CH1376] with a new extruder [CH74837] to be located at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the existing boilers that you have proposed to be modified.

The new extruder [CH74837] qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the new extruder [CH74837] in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/aw

Enclosure

cc: Laramie Daniel with copy of permit
Cecil County Health Department
Jay Bozman with copy of permit
EPA Region III

C

**KEEP PERMIT AT SITE** **CONTROL NO. B-** 02002

State of Maryland

Martin O' Malley
Governor

Shari T. Wilson
Secretary

**DEPARTMENT OF THE ENVIRONMENT**

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

| | | | |
|---|---|---|---|
| PERMIT NO. | 015-0079-7-0045 | DATE ISSUED | November 7, 2008 |
| PERMIT FEE | $500.00 (PAID) | EXPIRATION DATE | In accordance with COMAR 26.11.02.04B |

LEGAL OWNER & ADDRESS
W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton MD 21921
Attn: Mr. Shawn Connery

SITE
Cherry Hill Plant
SAME
CECIL County
AI# - 128

SOURCE DESCRIPTION

This permit to construct authorizes the installation of one (1) extruder [CH74837] to replace the existing extruder [CH1376] located in the Natural production area.

Five (5) drum dryers [CH#1045, CH#1314, CH#1381, CH#1632 & CH#2056] controlled by the Oxidizer Control System (OCS) and located in the Natural production area.

The permit to construct will supersedes permit to construct number 07-7-0045 M issued on August 22, 1997, permit to construct number 015-7-0045 M issued October 2, 2001 and permit to construct - number 015-7-0045 M issued November 9, 2007.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received June 15, 1989, May 19, 1997 and June 12, 2007. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] revised to include process update in the Natural PTFE manufacturing area.
**Application for Processing or Manufacturing Equipment (Form 5) received September 16, 2008 for replacement extruder [CH74837]**

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received May 19, 1997 and June 12, 2007. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] revised to include process update in the Natural PTFE manufacturing area.
**Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05). and the T-BACT Requirement (26.11.15.06) received October 16, 2008 via email for replacement extruder [CH74837].**

(c) Form 5B: Emission Data received May 19, 1997 and June 12, 2007. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] revised to include process update in the Natural PTFE manufacturing area.
**Form 5B: Emission Data received October 16, 2008 via email for replacement extruder [CH74837].**

(d) Application for Permit to Construct Gas Cleaning or Emission Control Equipment received September 4, 2001. [For SARA installation]

(e) Letter dated May 23, 2007 from company requesting a process update to reflect that the Oxidizer Control System (OCS) controls the process unit. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] received June 12, 2007.

(f) **Supplemental Information [Emissions Calculations] received September 16, 2008 for replacement extruder [CH74837]**

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) This permit to construct will supersede permit to construct number 07-7-0045 M issued August 22, 1997; permit to construct number 015-7-0045 M issued October 1, 2001 and permit to construct number 015-7-0045 M issued November 9, 2007.

(7) The addition of the extruder qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(b) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."
*Note: Application was submitted with the permit to construct application package.*

(c) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(d) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(e) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.
"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.
(2) Good Operating Practices.
(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that is consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) <u>Equipment Cleanup</u>.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(f) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks

"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(g) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.

"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.

(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:

(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(h) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(c) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(d) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(g) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(h) COMAR 26.11.15.06A – Ambient Impact Requirement.

(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the dryers [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] shall be modified and operated in accordance with specifications included in the applications.

(2) Except as otherwise provided in this part, the extruder [CH74837] shall be constructed in accordance with specifications included in the incorporated applications.

(3) All VOC containing materials shall be stored in closed containers.

(4) The existing oxidizer control system (OCS) shall control emissions from the dryers [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056]. The OCS is now permitted under permit to construct number 015-6-0173.

(5) For Control Equipment
The Oxidizer Control System (OCS) consisting of three thermal oxidizers.
The Oxidizer Control System shall be equipped with temperature monitors and recorders to continuously monitor and record the combustion gas exit temperature, which shall not be less than 1400 °F any time a controlled process is in operation.
The Permittee shall perform checks semiannually on the thermocouples that monitor the temperatures to the oxidizers for accuracy. Documentation of each check shall be maintained on site for a period of at least five years and made available to the Department upon request.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Records of material usage in the dryers [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] in the Natural PTFE manufacturing area.

(b) Monthly record of VOC material usage and days of operation of the extruder [CH74837].
(c) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(d) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

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By

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [x] Registration Update ❑ Initial Registration ❑

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

| County No. | Premises No. |
|---|---|
| 24 | 0079 |
| 1-2 | 3-6 |
| **Registration Class** | **Equipment No.** |
| 7 | 0045 |
| 7 | 8-11 |
| **Data Year** | |
| 0 8 | |
| 12-13 | **Application Date** |

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton — MD — 21921
City — State — Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

Shawn L Connery

Shawn Connery, Engineer — 9-15-2008
Print Name and Title — Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town — State — Zip — ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| A | 01/08 | 10/08 | Prior to 1990 |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
**New Extruder (CH74837) is replacing Extruder (CH1376). Generated from critical spare parts.**

**5. Workmen's Compensation Coverage** WA7-63D-004150-068 (Binder/Policy Number) 3/31/09 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 1

**6B. Number of Stack/Emission Points Associated with this Equipment** 1

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [X] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other

[ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

A B C D E F

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS Electric [ ] ANNUAL AMOUNT CONSUMED

(Specify Type) 66-1 (Specify Units of Measure)

OTHER FUEL [ ] ANNUAL AMOUNT CONSUMED

(Specify Type) 66-2 (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [x] | | | 7 | 7 | 350 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent | (Total Seasons= 100%) |
|---|---|---|---|---|---|
| [X] | | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 | |

12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only? (Y/N) N

85

**Ventilation for Associate comfort and to minimize the risk for fire.**

If not, then →

| Height Above Ground (FT) | Inside Diameter at Top | Exit Temperature (°F) | Exit Velocity (FT/SEC) |
|---|---|---|---|
| 33.5 | 8 inches | 79 | 43 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)**
**Is any of this data to be considered confidential?** N (Y or N)

**THIS IS WORST CASE ESTIMATE**

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Fluoro-polymers pellet containing: | 9002-84-0 | | | | |
| 2. Mineral Spirits | 64742-48-9 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoropolymer Products | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoro polymer scrap | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| | 3.2 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 1.4 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____

**Date Rec'd. State** 9/16/08

**Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____

**Reviewed by State** Date 9/26/08 By M. Gurley

**19. Inventory Date** Month/Year (171-174) _____ Equipment Code (175-177) _____ SCC Code (178-185) 20101852

**20.** Annual Operating Rate (186-192) _____ Maximum Design Hourly Rate (193-199) _____ Permit to Operate Month (200-201) _____ Transaction Date (MM/DD/YR) (202-207) 102108

Staff Code (208-210) _____ VOC Code (211 212) _____ SIP Code (213 214) _____ Regulation Code (215-218) _____ Confidentiality (219) _____

Point Description (220-238) [illegible]

Action (239) _____ A: Add C: Change

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

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# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address:<br>2401 Singerly Road | | |
| City:<br>Elkton | State:<br>MD | Zip[Code:<br>21921 |
| Telephone Number<br>(410) 398-6400 | | Fax Number<br>(410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager:<br>Mark A. Steimer, Sr. | Telephone Number:<br>(410) 398-6400 | Fax Number:<br>(410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues:<br>Peggy J. Horst | | Title:<br>Environmental Associate |
| Telephone Number<br>(410) 398-6400 | | E-Mail Address:<br>phorst@wlgore.com |

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X _____ 09-15-08

SIGNATURE DATE

MARK A. STEIMER, SR.
PRINTED NAME

PLANT MANAGER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

Installing a new extruder (CH74837) to replace existing extruder CH1376. CH74837 is being generated from spare parts we have in house, that are typically used as critical spares. When CH1376 is taken out of service, it's usable parts will become the critical spares. Emissions should not change since the replacement is "in-kind".

2. Projected Facility-Wide Emissions After the Minor modification

[X] There will be no change in emissions.

[ ] There will be a net increase in emissions.
List the projected actual facility-wide emissions increase (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____

HAPs_____

[ ] There will be a net decrease in emissions.
List the projected actual facility-wide emissions decrease (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____

HAPs_____

**SECTION 3A. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: **Insignificant Activity**

2. MDE Registration No.: (if applicable)

Inventoried under 7-0045

Date of proposed change (month/year): Sept 2008

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

CH74837 Fluoropolymer Extruder (emission point #199)

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: n/a

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 0 SOx 0 VOC 0.8 PM10 0 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 0 SOx 0 VOC 0.8 PM10 0 HAPs 0

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**
COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 4. CONTROL EQUIPMENT

| | |
|---|---|
| 1. Associated Emissions Units No, :<br>N/A | 2. Emissions Point No.: |
| 2. Type and Description of Control Equipment:<br><br>N/A | |
| 4. Polutants Controlled: | 5. Control Efficiency: |
| 6. Capture Efficiency: | |

# Certificate of Insurance

THIS CERTIFICATE ISSUED AS A MATTER OF INFORMATION. ONLY AND CONFERS NO RIGHT UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

**This is to Certify that**

W. L. Gore & Associates, Inc.

555 Paper Mill Road

Newark DE 19711

NAME AND ADDRESS OF INSURED

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2009 | WA7-63D-004150-068<br>WC7-631-004150-078 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All Sates Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate—Other than Products / Completed Operations<br>Products / Completed Operations Aggregate<br>Bodily Injury and Property Damage Liability Per Occurrence<br>Personal Injury Per Person / Organization<br>Other / Other | |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence | |
| OTHER | | | | |

ADDITIONAL COMMENTS

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

SPECIAL NOTICE-OHIO: ANY PERSON WHO, WITH INTENT TO DEFRAUD OR KNOWING THAT HE IS FACILITATING A FRAUD AGAINST AN INSURER, SUBMITS AN APPLICATION OR FILES A CLAIM CONTAINING A FALSE OR DECEPTIVE STATEMENT IS GUILTY OF INSURANCE FRAUD.

IMPORTANT NOTICE TO FLORIDA POLICYHOLDERS AND CERTIFICATE HOLDERS: IN THE EVENT YOU HAVE ANY QUESTIONS OR NEED INFORMATION ABOUT THIS CERTIFICATE FOR ANY REASON, PLEASE CONTACT YOUR LOCAL SALES PRODUCER WHOSE NAME AND TELEPHONE NUMBER APPEARS IN THE LOWER RIGHT HAND CORNER OF THIS CERTIFICATE. THE APPROPRIATE LOCAL SALES OFFICE MAILING ADDRESS MAY ALSO BE OBTAINED BY CALLING THIS NUMBER.

**Liberty Mutual Insurance Group**

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Certificate Holder

State of Maryland
Maryland Department of the Environment

1800 Washington Blvd.
Baltimore MD 21230

Lisa M. Davis
Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Wayne/Phila. 0300
690 Lee Road, Suite 200
Wayne PA 19087 — OFFICE
610-644-1056 — PHONE
6/2/2008 — DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies

NM 772

24-015-00079

015-0079

MDE

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary

JAN 13 2009

Mr. Corey Iwane
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

Dear Mr. Iwane:

Enclosed please find your Permit to Construct for the modification of the existing TD3 flotation dryer [CH2404] to be located at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the existing boilers that you have proposed to be modified.

The modification of the existing TD3 flotation dryer [CH2404] qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the modification of the existing TD3 flotation dryer [CH2404] in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/aw

Enclosure

cc: Laramie Daniel with copy of permit
Cecil County Health Department
Jay Bozman with copy of permit
EPA Region III

e

**KEEP PERMIT AT SITE** **CONTROL NO.** B- 02059

State of Maryland

Martin O' Malley
Governor

Shari T. Wilson
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-6-0276

DATE ISSUED January 13, 2009

PERMIT FEE $500.00 (PAID)

EXPIRATION DATE In accordance with COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS
W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton MD 21921
Attn: Mr. Corey Iwane

SITE
Cherry Hill Plant
SAME
CECIL County
AI# - 128

SOURCE DESCRIPTION

This permit authorizes the modification of TD3 flotation dryer [CH#2404] located in the Natural Production Area. Emissions are controlled by the Oxidizer Control System (OCS).

This permit to construct will supersede permit to construct number 015-6-0276 N issued November 9, 2007.

This source is subject to the conditions described on the attached pages.



Karen A S Dixon
Program Manager

Angela Brown
Director, Air and Radiation Management Administration

MDE/ARMA/PER.009 (Rev. 10-08-03)

(NOT TRANSFERABLE)

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received May 19, 1997; June 12, 2007 - [Dryer, TD3 - CH#2404] revised to include process update in the Natural PTFE manufacturing area;
Application for Process/Manufacturing Equipment (AMA-5) received **October 27, 2008** modified to increase line speed which increases emissions.

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received May 19, 1997; June 12, 2007 - [Dryer, TD3 - CH#2404] revised to include process update in the Natural PTFE manufacturing area;
Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received **October 27, 2008** modified to increase line speed which increases emissions

(c) Form 5B: Emission Data received May 19, 1997; June 12, 2007 - [Dryer, TD3 - CH#2404] revised to include process update in the Natural PTFE manufacturing area;
Form 5B: Emission Data received **October 27, 2008** modified to increase line speed which increases emissions.

(d) Letter dated May 23, 2007 from company requesting a process update to reflect that the Oxidizer Control System (OCS) controls the process unit. [Dryer, TD3 - CH#2404] received June 12, 2007.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) This permit to construct will supersede permit to construct number 015-6-0276 N issued November 9, 2007.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(b) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."

(c) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(d) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(e) COMAR 26.11.19.02 - Good Operating Practices, Equipment Cleanup, and VOC Storage.

"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.

(2) Good Operating Practices.

(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(f) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks

"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.
Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(g) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.
(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.

(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(h) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(d) COMAR 26.11.15.06A – Ambient Impact Requirement.
(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and
(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## PART C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the dryer [Dryer, TD3 - CH#2404] in the Natural PTFE area shall be modified and operated in accordance with specifications included in the applications.

(2) All VOC containing materials shall be stored in closed containers.

(3) The existing oxidizer control system (OCS) shall control emissions from the dryer [Dryer, TD3 - CH#2404]. The OCS is now permitted under permit to construct number 015-6-0173.

(4) For Control Equipment
The Oxidizer Control System (OCS) consisting of three thermal oxidizers.
The Oxidizer Control System shall be equipped with temperature monitors and recorders to continuously monitor and record the combustion gas exit temperature, which shall not be less than 1400 °F any time a controlled process is in operation.
The Permittee shall perform checks semiannually on the thermocouples that monitor the temperatures to the oxidizers for accuracy. Documentation of each check shall be maintained on site for a period of at least five years and made available to the Department upon request.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Records of material usage for dryer [Dryer, TD3 - CH#2404] in the Natural PTFE manufacturing area.
(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

CH2404(TD3)

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

RECEIVED OCT 27 2008

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [X] Registration Update ☐ Initial Registration ☐

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton — MD — 21921
City — State — Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

Corey Iwane
Print Name and Title

10/16/2008
Date

DO NOT WRITE IN THIS BLOCK
2. REGISTRATION NUMBER

County No. 015 (1-2)
Premises No. 0099 (3-6)
Registration Class 6 (7)
Equipment No. 0276 (8-11)
Data Year 08 (12-13)
Application Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town — State — Zip — ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| B | | | July, 1997 |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
Flotation Dryer, CH2404, (TD3)

**5. Workmen's Compensation Coverage** WA7-63D-004150-068 (Binder/Policy Number) 3/31/2009 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 0

**6B. Number of Stack/Emission Points Associated with this Equipment** _____

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [ ] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other

[ ] Describe OXIDIZER CONTROL SYSTEM (OCS)

24-9

## 10. Annual Fuel Consumption for this Equipment

A B C D E F

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | 900 | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [X] | | | 24 | 7 | 365 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent | (Total Seasons= 100%) |
|---|---|---|---|---|---|
| [X] | | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 | |

12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only? (Y/N) N
BASED ON LEAD OXIDIZER IN OCS. WILLIE

85

If not, then → 

| Height Above Ground (FT) | Inside Diameter at Top | Exit Temperature (°F) | Exit Velocity (FT/SEC) |
|---|---|---|---|
| 47 | 3.4 | 325 | 42.7 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

13. Input Materials (for this equipment only) THIS IS WORST CASE ESTIMATE
Is any of this data to be considered confidential? N (Y or N)

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

14. Output Materials (for this equipment)
Process/Product Stream

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

15. Waste Streams- Solid and Liquid

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| 2. VOC (after control) | | 6 | lbs | 13 | Tons |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

CH2404(TP3)

**16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day**

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 11 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 2 | 46 | 0 |
| 177-122 | 123-128 | 129-134 |

**17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day**

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 28 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | 2 | 2 | 2 | 1 | 2 |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____ **Date Rec'd. State** 10/29/08 **Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____ **Reviewed by State** Date 10/31/08 By M Gurley

**19. Inventory Date** **Month/Year** _____ (171-174) **Equipment Code** _____ (175-177) **SCC Code** 30101852 (178-185) tons of product produced

**20. Annual Operating Rate** _____ (186-192) **Maximum Design Hourly Rate** _____ (193-199) **Permit to Operate Month** _____ (200-201) **Transaction Date (MM/DD/YR)** 10310 8 (202-207)

**Staff Code** _____ (208-210) **VOC Code** _____ (211 212) **SIP Code** _____ (213 214) **Regulation Code** _____ (215-218) **Confidentiality** _____ (219)

**Point Description** Flotation dryer (220-238) **Action** _____ (239) A: Add C: Change

**TD3 (CH2404)**

Willie Oxidizer, the lead oxidizer in the Oxidizer Control System (OCS), recently tested (3/2007) and showed a destruction efficiency of 99.22%

**Assumptions:**

processes are drum dryers, vent to atmosphere and the OCS, Cap.=97.7%, **DRE = 99.22%**

| | |
|---|---|
| **f** = x(2.34%)/2 = **x(1.17%)** | fugitive (see columns "R", "AF") |
| s = x(2.34%)/2 = x(1.17%) | stack to atmos |
| s = x(97.7%)(0.78%) = x(0.76%) | stack to OCS |
| **s total** = x(1.17%+0.76%) = **x(1.93%)** | total to stack (see columns "S", "AG") |

Capture Efficiency was determined from a study completed by Gore.
It was estimated that 2.34% of lube usage was lost as fugitive emissions via extruders and rolldown.

- 70% utilization of equipment
- For PTE: days/year = 14 days for plant shutdown & misc. maintenance downtime.

**Est. Worst Case Emissions**

| CH | hrs/day | day/yr | | avg rate (VOC lb/hr) | F (lbs/hr) | S (lbs/hr) | Total (lbs/hr) | F (lb/day) | S (lb/day) | Total lb/day | Total Tons/yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0.0117 | 0.0193 | | | | | |
| 2404 | 12 | 350 | | 198 | 2.317 | 3.821 | 6.138 | 27.799 | 45.857 | 73.656 | 12.890 |
| | | | | | | | | | | | |
| | | | | | 2.3 | 3.8 | 6.1 | 27.8 | 45.9 | 73.7 | 12.9 |

**Est. PTE Emissions (includes operational limits)**

| CH | hrs/day | day/yr | | avg rate (VOC lb/hr) | F (lbs/hr) | S (lbs/hr) | Total (lbs/hr) | F (lb/day) | S (lb/day) | Total lb/day | Total Tons/yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2404 | 12 | 350 | | 198 | 2.317 | 3.821 | 6.138 | 27.799 | 45.857 | 73.656 | 12.890 |
| | | | | | | | | | | | |
| | | | | | 2.3 | 3.8 | 6.1 | 27.8 | 45.9 | 73.7 | 12.9 |

**Design Cap. (based on equipment design)**

| CH | hrs/day | day/yr | | avg rate (VOC lb/hr) | F (lbs/hr) | S (lbs/hr) | Total (lbs/hr) | F (lb/day) | S (lb/day) | Total lb/day | Total Tons/yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2404 | 24 | 365 | | 198 | 2.317 | 3.821 | 6.138 | 55.598 | 91.714 | 147.312 | 26.884 |
| | | | | | | | | | | | |
| | | | | | 2.3 | 3.8 | 6.1 | 55.6 | 91.7 | 147.3 | 26.9 |

**Combustion Emissions**

| Equipment | Registration No | Firing Rate gal/hr | % of Use based on Firing Rates | Unit Size | Days operated | #2 Fuel Oil (gallons) | PM10 (lbs/day) | SOx* (lbs/day) | NOx (lbs/day) | CO (lbs/day) | VOC (lbs/day) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | (lb/1,000 gallons | (lb/1,000 gallons | (lb/1,000 gallons | (lb/1,000 gallons | (lb/1,000 gallons |
| CH2404 | | | 0.25 | TD3 | 350 | 216998.25 | 0.32 | 0.02 | 11.34 | 1.54 | 0.24 |
| | | | | | | TONS/YR | 0.06 | 0.00 | 1.98 | 0.27 | 0.04 |

CH2404

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ● Baltimore, Maryland 21230
(410) 537-3230 ● 1-800-633-6101 ● www.mde.state.md.us

**Air and Radiation Management Administration ● Air Quality Permits Program**

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## Summary of Demonstrations for Meeting the ambient impact Requirement (26.11.15.05) and the T-Bact Requirement (26.11.15.06)

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc. – Cherry Hill Plant

1. Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

| Emission Reduction Option | % Emission Reduction | COSTS Capital | COSTS Annual Operating |
|---|---|---|---|
| 1. Oxidizer Control System (OCS) which includes the following oxidizers | | | |
| Willie (OX#3) | 99.22% (lead oxidizer) | | |
| SARA (OX#1 | 99.1% | | |
| T-Ox (OX#2) | 99.1% | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

2. Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

3. List screening levels and highest estimated off-site concentrations (ug/m$^3$) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged fromthe installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

| | Toxic Air Pollutant | CAS Number | SCREENING LEVEL(S) 1-HR | 8-HR | Annual | OFF-SITE CONCENTRATIONS 1-HR | 8-HR | Annual |
|---|---|---|---|---|---|---|---|---|
| 1 | PTFE | 9002-84-0 | - | - | - | - | - | - |
| 2 | Mineral Spirits | 64742-48-9 | - | 12,000 | - | - | 378 | - |
| 3 | Propylene glycol | 57-55-6 | - | 308 | - | - | 60 | - |
| 4 | Isopropanol (IPA, 2-propanol) | 67-63-0 | 9,830 | 4,920 | - | 279 | 195 | - |
| 5 | Methanol | 67-56-1 | 3,276 | 2,620 | - | 53 | 37 | - |
| 6 | Ethanol | 64-17-5 | - | 18,800 | - | - | 37 | - |
| 7 | Fluoroether Oils | 865-08-42 | - | - | - | - | 31 | - |
| 8 | Hexane (n-Hexane) | 110-54-3 | 35,247 | 1,760 | - | 39 | 28 | - |
| 9 | Ethylene Glycol | 107-21-1 | 1,000 | - | - | 40 | - | - |
| 10 | Tertiary Butyl alcohol | 75-65-0 | - | 3,030 | - | - | 28 | - |
| 11 | n-propanol (NPA, 1-propanol) | 71-23-8 | 9,830 | 2,457 | - | 210 | 147 | - |
| 12 | Hexanol | 111-27-3 | - | 27 | - | - | 11 | - |
| 13 | APFO-Surfactant | 3825-26-1 | - | 0.1 | - | - | 0.08 | - |
| 14 | | | | | | | | |

☐ If unable to use a Screening Analysis, check the box and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B(12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B(2)).

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

TD3 2008 Modification

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE              =        POINT
   EMISSION RATE (G/S)      =      .773388
   STACK HEIGHT (M)         =      14.4000
   STK INSIDE DIAM (M)      =       1.0400
   STK EXIT VELOCITY (M/S)=        13.0030
   STK GAS EXIT TEMP (K)    =     435.9278
   AMBIENT AIR TEMP (K)     =     293.0000
   RECEPTOR HEIGHT (M)      =        .0000
   URBAN/RURAL OPTION       =        RURAL
   BUILDING HEIGHT (M)      =       7.3152
   MIN HORIZ BLDG DIM (M) =       106.6800
   MAX HORIZ BLDG DIM (M) =       137.1600

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =   11.304 M**4/S**3;  MOM. FLUX =   30.729 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
```

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | .0000 | 1 | 1.0 | 1.0 | 320.0 | 143.16 | 2.33 | 2.30 | NO |
| 100. | 36.63 | 4 | 15.0 | 15.8 | 4800.0 | 17.87 | 8.32 | 9.86 | HS |
| 200. | 21.84 | 4 | 15.0 | 15.8 | 4800.0 | 20.74 | 15.72 | 13.22 | HS |
| 300. | 17.84 | 4 | 15.0 | 15.8 | 4800.0 | 21.32 | 22.74 | 16.33 | HS |
| 400. | 16.16 | 4 | 10.0 | 10.6 | 3200.0 | 26.35 | 29.67 | 19.48 | HS |
| 500. | 14.58 | 4 | 8.0 | 8.4 | 2560.0 | 30.03 | 36.42 | 22.48 | HS |
| 600. | 13.24 | 4 | 8.0 | 8.4 | 2560.0 | 30.03 | 42.95 | 25.23 | HS |
| 700. | 11.85 | 4 | 8.0 | 8.4 | 2560.0 | 30.03 | 49.39 | 27.92 | HS |
| 800. | 10.92 | 4 | 5.0 | 5.3 | 1600.0 | 39.41 | 56.03 | 27.72 | NO |
| 900. | 10.60 | 4 | 5.0 | 5.3 | 1600.0 | 39.41 | 62.29 | 30.32 | NO |
| 1000. | 10.12 | 4 | 4.5 | 4.8 | 1440.0 | 42.19 | 68.59 | 33.06 | NO |
| 1100. | 9.580 | 4 | 4.5 | 4.8 | 1440.0 | 42.19 | 74.73 | 35.04 | NO |
| 1200. | 9.108 | 4 | 4.0 | 4.2 | 1280.0 | 45.66 | 80.93 | 37.18 | NO |
| 1300. | 8.658 | 4 | 4.0 | 4.2 | 1280.0 | 45.66 | 86.98 | 39.04 | NO |
| 1400. | 8.275 | 4 | 3.5 | 3.7 | 1120.0 | 50.13 | 93.11 | 41.15 | NO |
| 1500. | 7.916 | 4 | 3.5 | 3.7 | 1120.0 | 50.13 | 99.07 | 42.90 | NO |
| 1600. | 7.562 | 4 | 3.5 | 3.7 | 1120.0 | 50.13 | 104.99 | 44.62 | NO |
| 1700. | 7.284 | 4 | 3.0 | 3.2 | 960.0 | 56.09 | 111.05 | 46.71 | NO |
| 1800. | 7.015 | 4 | 3.0 | 3.2 | 960.0 | 56.09 | 116.89 | 48.35 | NO |
| 1900. | 6.821 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 93.16 | 37.21 | NO |
| 2000. | 7.081 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 97.43 | 38.15 | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2100. | 7.259 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 101.68 | 38.98 | NO |
| 2200. | 7.412 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 105.92 | 39.80 | NO |
| 2300. | 7.541 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 110.15 | 40.61 | NO |
| 2400. | 7.648 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 114.36 | 41.41 | NO |
| 2500. | 7.736 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 118.56 | 42.20 | NO |
| 2600. | 7.805 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 122.74 | 42.98 | NO |
| 2700. | 7.858 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 126.91 | 43.75 | NO |
| 2800. | 7.896 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 131.06 | 44.51 | NO |
| 2900. | 7.920 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 135.21 | 45.26 | NO |
| 3000. | 7.933 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 139.34 | 46.00 | NO |
| 3500. | 7.855 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 159.80 | 49.60 | NO |
| 4000. | 7.623 | 5 | 1.0 | 1.1 | 10000.0 | 78.33 | 179.99 | 53.01 | NO |
| 4500. | 7.632 | 6 | 1.0 | 1.2 | 10000.0 | 66.18 | 133.33 | 35.77 | NO |
| 5000. | 7.631 | 6 | 1.0 | 1.2 | 10000.0 | 66.18 | 146.42 | 37.27 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 70. | 42.75 | 4 | 20.0 | 21.1 | 6400.0 | 15.48 | 6.03 | 8.45 | HS |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

```
****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
```

| *** CAVITY CALCULATION - 1 *** | | | *** CAVITY CALCULATION - 2 *** | | |
|---|---|---|---|---|---|
| CONC (UG/M**3) | = | .0000 | CONC (UG/M**3) | = | .0000 |
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 7.32 | CAVITY HT (M) | = | 7.32 |
| CAVITY LENGTH (M) | = | 42.20 | CAVITY LENGTH (M) | = | 40.18 |
| ALONGWIND DIM (M) | = | 106.68 | ALONGWIND DIM (M) | = | 137.16 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
****************************************
      END OF CAVITY CALCULATIONS
****************************************
```

```
****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 42.75 | 70. | 0 |

CH2404

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# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ● Baltimore, Maryland 21230
(410) 537-3230 ● 1-800-633-6101 ● www.mde.state.md.us

**Air and Radiation Management Administration ● Air Quality Permits Program**

## Emissions Data

**Fill out one Form 5B for each stack or other emission point subject to the regulations (see the General Instructions for more detail).**

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc.- Cherry Hill

1. Number Identifying this Emission Point on Required Plot Plan _____
(If applicable, list company's internal I.D. Flotation Dryer (TD3) in the Natural PTFE Mfg Area)

2. Brief description of Emission Point, Associated Equipment and Control Devices

Flotation Dryer controlled by the OCS

3. Emission Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes/Hour | Hours/Day | Days/Week | Weeks/Year |
|---|---|---|---|---|---|
| | X | 60 | 24 | 7 | 52 |

Seasonal Variation: None X Winter %_____ Spring%_____ Summer%_____ Fall%_____

4. Stack Information **WILLIE Oxidizer**

Height above ground (ft): 47.24
Inside Diameter at top of round stack (ft): 3.4 ft
Exit Temperature (°F): 325 F
Height above structures (ft): _____
Dimensions at top of rectangular stack (ft): _____
Exit Velocity (ft/min): 0.711
Distance to Nearest Property Line (ft): 425 ft.
Gas Volume (acfm): 265

Dimensions of Building Stack is on (ft): Height 24 Length 425 Width 500

5. Control Devices Associated with this Stack or Emission Point

| Control Device | Number | Control Device | Number |
|---|---|---|---|
| 0. None | | 7. Elec. Precipitator | |
| 1. Simple Cyclone | | 8. Baghouse | |
| 2. Multiple Cyclone | | 9. Thermal Afterburner | ocs |
| 3. Spray Tower | | 10. Catalytic Afterburner | |
| 4. Absorption Tower | | 11. Other (specify) | |
| 5. Venturi Scrubber | | | |
| 6. Carbon Adsorber | | | |

6. Criteria Pollutant Emissions (attach supporting documentation)

| Criteria Pollutants | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected (lb/hr) | Operations (1) (ton/year) |
|---|---|---|---|
| Particulate Matter | 0 | 0 | 0 |
| PM10 | 0 | 0 | 0 |
| Oxides of Sulfur | 0 | 0 | 0 |
| Oxides of Nitrogen | 0 | 0 | 0 |
| Carbon Monoxide | 0 | 0 | 0 |
| VOC (total) | 6.1 | 6.1 | 12.9 |
| Lead | 0 | 0 | 0 |

7. Toxic Air Pollutant Emissions (attach supporting documentation)

| | Toxic Air Pollutant (list all) | CAS Number | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected Operations (1) (lb/hour) | Projected Operations (1) (ton/year) | Used for Form 5A, Part 3 (2) (lb/hour) | Used for Form 5A, Part 3 (2) (ton/year) |
|---|---|---|---|---|---|---|---|
| 1 | Mineral Spirits | 64742-48-9 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 2 | Propylene glycol | 57-55-6 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 3 | Isopropanol | 67-63-0 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 4 | Methanol | 67-56-1 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 5 | Ethanol | 64-17-5 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 6 | Fluoroether Oils | 865-08-42 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 7 | Hexane (n-Hexane) | 110-54-3 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 8 | Ethylene Glycol | 107-21-1 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 9 | Tertiary Butyl alcohol | 75-65-0 | **6.1** | 6.1 | **12.9** | 6.1 | **12.9** |
| 10 | n-propanol (NPA, 1-propanol) | 71-23-8 | **0** | 0 | **0** | 0 | **0** |
| 11 | Hexanol | 111-27-3 | **0** | 0 | **0** | 0 | **0** |
| 12 | APFO-Surfactant | 3825-26-1 | **0** | 0 | **0** | 0 | **0** |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.
(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxic regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address:<br>2401 Singerly Road | | |
| City:<br>Elkton | State:<br>MD | Zip[Code:<br>21921 |
| Telephone Number<br>(410) 398-6400 | | Fax Number<br>(410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager:<br>Mark A. Steimer, Sr. | Telephone Number:<br>(410) 398-6400 | Fax Number:<br>(410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues:<br>Keena J. Dautlick | | Title:<br>Environmental Associate |
| Telephone Number<br>(410) 398-6400 | | E-Mail Address:<br>kdautlic@wlgore.com |

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X _____ 10/16/08

SIGNATURE DATE

MARK A. STEIMER, SR.
PRINTED NAME

PLANT MANAGER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [ ] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [x] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

The TD3 line speed will be increased to meet growing product demands. As a result, there will be increased emissions that will go to the site oxidizer control system. No new chemicals will be introduced in the modification.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.

List the projected actual facility-wide emissions increase (in tons) below:

PM10_____ NOx_____ VOC__10.6__ SOx_____ CO_____

HAPs_____

☐ There will be a net decrease in emissions.

List the projected actual facility-wide emissions decrease (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____

HAPs_____

## SECTION 3A EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-3-2

2. MDE Registration No.: (if applicable)

6-0276

Date of proposed change (month/year): 01/09

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

TD3 Drying oven (CH #2404) controlled by oxidizer control system. Emission points 168, 169, 179, 180.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: _____NA_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1.____Propane | | 900,000 gallons_____ |
| 2._____ | | |
| 3._____ | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx_1.98__ SOx__0__ VOC__2.3_ PM10__0.06_ HAPs_____

B. Projected Actual Emissions After Modification:

NOx_1.98 SOx__0__ VOC_12.9_ PM10_0.06_ HAPs_____

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Visible Emissions.**
COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring

A. The Permittee shall visually inspect the exhaust of the oxidizer control system at least monthly for a 6-minute period when the process lines are in operation and shall record the results of each observation. If no visible emissions are observed in six consecutive monthly observations, the frequency of visual observation may decrease from monthly to quarterly.
If emissions are visible greater than 20 percent opacity from oxidizer control system, the Permittee shall perform the following unless it can be shown, through a Method 9 test, that the visible emissions are zero percent opacity:
(a) inspect all process and/or control equipment related to emission point;
(b) perform all necessary repairs and/or adjustments to the oxidizers, within 48 hours, so that visible emissions in the exhaust gases are less than 20 percent opacity; and
(c) document, in writing, the results of the inspections and the repairs and/or adjustments made to the oxidizer control system.
If visible emissions greater than 20% opacity have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily when the process lines are in operation until the visible emissions have been reduced to less than 20 percent opacity. **[Reference: COMAR 26.11.03.06C]**

Testing:

A. None.

Record Keeping:

A. The Permittee shall keep records of results of visual emission observations and document any incidence of visible emissions and corrective action taken by the Permittee. **[Reference: COMAR 26.11.03.06C].**

Reporting:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations".

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.03B(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Particulate Matter.**
COMAR 26.11.06.03B(1) – Particulate Matter from Confined Sources. "A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/scfd (115 kg/dscm)."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall develop and maintain a preventive maintenance plan for the oxidizer control system that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the time frames established in the plan and shall maintain a log with records of the dates and description of the maintenance that was performed. **[Reference: COMAR 26.11.03.06C].**

Testing:

B. None.

Record Keeping:

B. The Permittee shall maintain a copy of the preventive maintenance plan and a record of the dates of and description of maintenance activity performed. The Permittee shall maintain records of the oxidizer control system malfunctions and the corrective actions taken to bring into proper operation. **[Reference: COMAR 26.11.03.06C].**

Reporting:

B. The Permittee shall submit a copy of the preventive maintenance plan, records of maintenance activities and corrective actions taken upon request. **[Reference: COMAR 26.11.03.06C].**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.19.30E

Briefly describe the Emission Standard/Limit or Operational Limitation:

C. **Control of Volatile Organic Compounds**
COMAR 26.11.19.30E – General Requirements for PTFE Installations.
(1) "A person who owns or operates a PTFE installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the PTFE installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates PTFE compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet PTFE during storage; and
(b) Covering dipping troughs when not in operation.

(6) A person who owns or operates a PTFE coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in E (2), (3), and (4) of this regulation."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

C. For the oxidizer control system, the combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the PTFE installation unless the approved control system is operating." [Reference: **COMAR 26.11.19.30E(2)**].
The Permittee shall perform checks semi-annually on the thermocouples that monitor the temperatures to the oxidizer control system for accuracy. **[Reference: COMAR 26.11.03.06C]**.

Testing:

C. **COMAR 26.11.19.30 F.** – "Compliance with this regulation shall be demonstrated using the applicable

VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department. The Permittee shall conduct performance testing of the primary oxidizer in the control system once during the 5-year term of the permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to proposed date of the test.

Record Keeping:

C. The following records shall be kept on site for a period of at least five (5) years except for the design data, which shall be retained permanently. The records shall be made available to the Department on request:
(1) Permanent records, for the life of the equipment, of pertinent design data for the control device including manufacturer specifications and/or vendor guarantees for the control device and catalyst, catalyst requirements, design space velocity, operating limits, volume and configuration of catalyst required;
(2) Maintenance records of types and dates of work performed on the oxidizer control system;
(3) Records of the combustion chamber temperature, which shall be greater than 1400 °F any time a controlled process line is in operation; and
(4) Records of the results of destruction efficiency tests.
(5) The Permittee shall keep records of the damper position and corresponding chamber temperature on site for at least five years.
(6) The Permittee shall keep records of the semi-annual checks of the thermocouples on site for at least five years. **[Reference: COMAR 26.11.03.06C]**

Reporting:

C. The Permittee shall report results of the performance testing to the Department within 45 days after completion of the test.

The Permittee shall make the records of the thermo couple checks made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**
COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store

| |
|---|
| VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia." |

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.16C

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Control of VOC Equipment Leaks.**
COMAR 26.11.19.16C - General Requirements.
"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

D. Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall:

(1) Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for leaks at least once each calendar month;

(2) Tag any leak immediately with I.D. Number, the date leak was discovered, and the name of the person who discovered the leak. The tag is to remain in place until the leak is repaired;

(3) Take immediate action to repair/control all observed leaks that can be repaired within 48 hours;

(4) Repair all other leaking components not later than 15 days after the leak is discovered in accordance with COMAR 26.11.19.16C(4);

(5) If a replacement part is needed, it shall be ordered within 3 days after discovery of the leak and the leak shall be repaired within 48 hours after receiving the part;

(6) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and

(7) Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown.

**[Reference: COMAR 26.11.19.16C and D]**

Testing:

None.

Record Keeping:

B. The Permittee shall:

(1) Maintain a log that includes the name of the person conducting the inspection, the date on which leak inspection was made, the findings of the inspection, a list of leaks by tag identification number, the date the part was ordered, and the date the leak was repaired; and

(2) Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the leaks' occurrence.

**[Reference: COMAR 26.11.19.16C(6)]**

Reporting:

B. Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 4: CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : | 2. Emissions Point No.: |
|---|---|
| EU-3-2 | Oxidizer Control System |

3. Type and Description of Control Equipment:

Oxidizer Control System (OCS), which consists of three thermal oxidizers:
Willie (Oxidizer #3)
SARA (Oxidizer #1)
Tec (Oxidizer #2)

| 4. Polutants Controlled: | 5. Control Efficiency: |
|---|---|
| VOC | Oxidizer #3: 99.2% (3/07)<br>Oxidizer #1: 99.1% (8/02)<br>Oxidizer #2: 99.1% (6/98) |

6. Capture Efficiency:
Oxidizer #3: 99.3%
Oxidizer #1: 99.3%
Oxidizer #2: 98.3%

# Certificate of Insurance

THIS CERTIFICATE ISSUED AS A MATTER OF INFORMATION. ONLY AND CONFERS NO RIGHT UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

**This is to Certify that**

W. L. Gore & Associates, Inc.

555 Paper Mill Road

Newark DE 19711

NAME AND ADDRESS OF INSURED

Liberty Mutual®

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE<br>☐ CONTINUOUS<br>☐ EXTENDED<br>☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2009 | WA7-63D-004150-068<br>WC7-631-004150-078 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All Sates Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate—Other than Products / Completed Operations<br>Products / Completed Operations Aggregate<br>Bodily Injury and Property Damage Liability Per Occurrence<br>Personal Injury Per Person / Organization<br>Other / Other | |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence | |
| OTHER | | | | |

ADDITIONAL COMMENTS

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.
SPECIAL NOTICE-OHIO: ANY PERSON WHO, WITH INTENT TO DEFRAUD OR KNOWING THAT HE IS FACILITATING A FRAUD AGAINST AN INSURER, SUBMITS AN APPLICATION OR FILES A CLAIM CONTAINING A FALSE OR DECEPTIVE STATEMENT IS GUILTY OF INSURANCE FRAUD.

IMPORTANT NOTICE TO FLORIDA POLICYHOLDERS AND CERTIFICATE HOLDERS: IN THE EVENT YOU HAVE ANY QUESTIONS OR NEED INFORMATION ABOUT THIS CERTIFICATE FOR ANY REASON, PLEASE CONTACT YOUR LOCAL SALES PRODUCER WHOSE NAME AND TELEPHONE NUMBER APPEARS IN THE LOWER RIGHT HAND CORNER OF THIS CERTIFICATE. THE APPROPRIATE LOCAL SALES OFFICE MAILING ADDRESS MAY ALSO BE OBTAINED BY CALLING THIS NUMBER.

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Liberty Mutual Insurance Group

Certificate Holder

State of Maryland
Maryland Department of the Environment

1800 Washington Blvd.
Baltimore MD 21230

Lisa M. Davis
Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Wayne/Phila. 0300
690 Lee Road, Suite 200
Wayne PA 19087 — OFFICE
610-644-1056 — PHONE
6/2/2008 — DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies

NM 772

24-015-00079

GORE
Creative Technologies Worldwide

W. L. GORE & ASSOCIATES, INC.

501 VIEVE'S WAY • ELKTON, MD 21921
Phone 410-392-3800 • Fax 410-506-3734
CORPORATE ENVIRONMENTAL HEALTH & SAFETY

RECEIVED
NOV 13 2009
3AP20

October 29, 2009

Maryland Department of the Environment
Air and Radiation Management Administration
Attention: Ms. Marcellina Gurley
1800 Washington Blvd., Suite 720
Baltimore, MD 21230-1720

RE: Appleton North – Permit to Operate
Premise Number: 015-00105
Plant Name: Appleton North

Dear Ms. Gurley:

During the review of the draft updated Permit to Operate for the Appleton North facility, we could not verify that we had sent notification of the start-up date for the Burnham (4SP-300) natural gas fired boiler (registration number 015-0105-0102). This boiler burns only natural gas and has a heat input rating of 12.55 million BTU/hr. The start-up date for this unit was February 25, 2008.

If you have any questions regarding this letter, please contact me at (410) 506-3890.

Sincerely,

William Livingston/wg

William L. Livingston
Environmental Associate

WLL/wg

cc: Corporate EH&S Files, Gore
Chad Thomas, Gore (APN)
C. Wheeling, MDE
Region 3 EPA Chief

GORE AND DESIGN ARE TRADEMARKS OF W. L. GORE & ASSOCIATES, INC.

24-015-00079

015-0079


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

MDE

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Secretary

Robert M. Summers, Ph.D.
Deputy Secretary


DEC - 1 2009

RECEIVED
DEC 08 2009
Air Protection Division
(3AP10)

Mr. Steven Alberding
W.L. Gore & Associates, Inc.
2401 Singerly Road
P.O. Box 1220
Elkton MD 21922-1220

Dear: Mr. Alberding:

Enclosed please find your Permit to Construct for the addition of the riptide area consisting of mixing, pelletizing and extruding equipment to be located at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the existing boilers that you have proposed to be modified.

The new riptide area qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the new riptide area in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/aw

Enclosure

cc: Laramie Daniel with copy of permit
Cecil County Health Department
Jay Bozman with copy of permit
EPA Region III

**KEEP PERMIT AT SITE** **CONTROL NO. B- 02496**

State of Maryland

Martin O' Malley
Governor

Shari T. Wilson
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-6-0297

DATE ISSUED December 1, 2009

PERMIT FEE $1,000.00 (PAID)

EXPIRATION DATE In accordance with COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**

W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton MD 21921
Attn: Mr. Steven Alberding

**SITE**

Cherry Hill Plant
SAME
CECIL County
Premises# - 015-0079
AI# - 128

**SOURCE DESCRIPTION**

Installation of one (1) Riptide area consisting of mixing, pelletizing, and extrusion equipment.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received September 22, 2009 for riptide area consisting of mixing, pelletizing and extruding equipment.

(b) Summary of Demonstrations for Meeting the Ambient Impact Requirement and T-BACT Requirements (Form 5A) received October 26, 2009 via email.

(c) Emissions Data (Form 5B) received October 26, 2009 via email.

(d) Supplemental Information [Flow diagram] received September 22, 2009 for riptide area.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The addition of the riptide area qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(b) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."
*Note: Application was submitted with the permit to construct application package.*

(c) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(d) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(e) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.

(2) Good Operating Practices.

(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that is consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(f) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks

"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.
Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(g) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.
(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(h) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(c) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(d) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(a) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(b) COMAR 26.11.15.06A – Ambient Impact Requirement.

(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the riptide area shall be constructed and operated in accordance with specifications included in the applications.

(2) All VOC containing materials shall be stored in closed containers.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Records of material usage in the riptide area.
(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

SEP 22 2009

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [x] Registration Update ☐ Initial Registration ☐

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**
County No. 05 (1-2) Premises No. 0079 (3-6)
Registration Class 4 (7) Equipment No. 0297 (8-11)
Data Year 10 (12-13) Application Date

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton MD 21921
City State Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

Steven Alberding

Steven Alberding
Print Name and Title Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town State Zip ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| A | 12/09 | 02/10 | |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
**Riptide area consisting of mixing, pelletizing, and extruding equipment**

**5. Workmen's Compensation Coverage** WA7-63D-004150-069 (Binder/Policy Number) 3/31/2010 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 0

**6B. Number of Stack/Emission Points Associated with this Equipment** 0

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [X] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other

[ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

A B C D E F

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS electric (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

**1= Coke 2= COG 3=BFG 4=Other**

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [X] | | | 24 | 7 | 350 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent | (Total Seasons= 100%) |
|---|---|---|---|---|---|
| [X] | | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 | |

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) [Y] 85

If not, then → Height Above Ground (FT) [ ] 86-88 | Inside Diameter at Top [ ] 89-91 | Exit Temperature (°F) [ ] 92-95 | Exit Velocity (FT/SEC) [ ] 96-98

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)** **THIS IS WORST CASE ESTIMATE**
**Is any of this data to be considered confidential?** [N] (Y or N)

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| **TOTAL** | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL** | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. FPM | | 0.1 | lbs | 0.21 | Tons |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| **TOTAL** | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 0 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 0.1 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** **(1= Estimate 2= Emission Factor 3= Stack Test 4= Other)**

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | 1 | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____ **Date Rec'd. State** _____ **Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____ **Reviewed by State** Date_____ By_____

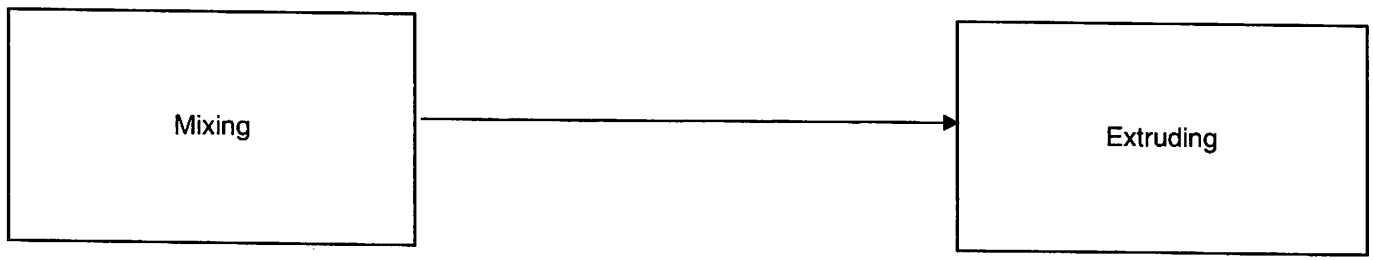
**19. Inventory Date** **Month/Year** (171-174) **Equipment Code** (175-177) **SCC Code** (178-185)

**20. Annual Operating Rate** (186-192) **Maximum Design Hourly Rate** (193-199) **Permit to Operate Month** (200-201) **Transaction Date (MM/DD/YR)** (202-207)

**Staff Code** (208-210) **VOC Code** (211 212) **SIP Code** (213 214) **Regulation Code** (215-218) **Confidentiality** (219)

**Point Description** (220-238) **Action** (239) A: Add C: Change

# Filled FPM Process Flow (Riptide)




**Assumptions:**
Emissions are fugitive. The remainder of VOCs continue with product.
Capture efficiency was determined from a study completed by Gore. It was estimated that 2.34% of lube usage was lost as fugitive emissions via extruders and roll down. These units do not dry the material.

## Certificate of Insurance

THIS CERTIFICATE ISSUED AS A MATTER OF INFORMATION. ONLY AND CONFERS NO RIGHT UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

This is to Certify that

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

NAME AND ADDRESS OF INSURED

Liberty Mutual®

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2010 | WA7-63D-004150-069<br>WA7-63D-004150-069 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All Sates Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate—Other than Products / Completed Operations<br>Products / Completed Operations Aggregate<br>Bodily Injury and Property Damage Liability Per Occurrence<br>Personal Injury Per Person / Organization<br>Other / Other | |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence | |
| OTHER | | | | |

ADDITIONAL COMMENTS

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.
SPECIAL NOTICE-OHIO: ANY PERSON WHO, WITH INTENT TO DEFRAUD OR KNOWING THAT HE IS FACILITATING A FRAUD AGAINST AN INSURER, SUBMITS AN APPLICATION OR FILES A CLAIM CONTAINING A FALSE OR DECEPTIVE STATEMENT IS GUILTY OF INSURANCE FRAUD.

IMPORTANT NOTICE TO FLORIDA POLICYHOLDERS AND CERTIFICATE HOLDERS: IN THE EVENT YOU HAVE ANY QUESTIONS OR NEED INFORMATION ABOUT THIS CERTIFICATE FOR ANY REASON, PLEASE CONTACT YOUR LOCAL SALES PRODUCER WHOSE NAME AND TELEPHONE NUMBER APPEARS IN THE LOWER RIGHT HAND CORNER OF THIS CERTIFICATE. THE APPROPRIATE LOCAL SALES OFFICE MAILING ADDRESS MAY ALSO BE OBTAINED BY CALLING THIS NUMBER.

Liberty Mutual Insurance Group

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
Baltimore MD 21230-1720

Lisa M. Davis
AUTHORIZED REPRESENTATIVE

| OFFICE | PHONE | DATE ISSUED |
|---|---|---|
| Wayne/Phila. 0300<br>690 Lee Road, Suite 200<br>Wayne PA 19087 | 610-644-1056 | 3/3/2009 |

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies

NM 772

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Sally R. Hawke 9/15/09

SIGNATURE DATE

Sally Hawke
PRINTED NAME

Plant Leader
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance still remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

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501 VIEVE'S WAY

ELKTON MD 21922-1320

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Liberty Mutual®

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| GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate—Other than Products / Completed Operations<br>Products / Completed Operations Aggregate<br>Bodily Injury and Property Damage Liability Per Occurrence<br>Personal Injury Per Person / Organization<br>Other | Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence | |
| OTHER | | | | |

ADDITIONAL COMMENTS

• If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.
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NM 772

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RESPONSIBLE OFFICIAL:

X Sally R. Hawke 9/15/09

SIGNATURE DATE

Sally Hawke
PRINTED NAME

Plant Leader
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance still remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

# PART 70 PERMIT APPLICATION FOR MINOR MODIFICATION
AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator: W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address: 2401 Singerly Road | | |
| City: Elkton | State: MD | Zip Code: 21921 |
| Telephone Number (410) 398-6400 | | Fax Number (410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator: SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager: Sally Hawke | Telephone Number: (410) 398-6400 | Fax Number: (410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues: Keena J. Dautlick | | Title: Environmental Associate |
| Telephone Number (410) 398-6400 | | E-Mail Address: kdautlic@wlgore.com |

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

This process will include mixing, pelletizing, and extrusion, and is similar to existing Fluoropolymer based filled processes. Emissions are expected to be minimal, and they will all be fugitive.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.
List the projected actual facility-wide emissions increase (in tons) below:

PM10_____ NOx_____ VOC_0.02_____ SOx_____ CO_____

HAPs_____

☐ There will be a net decrease in emissions.
List the projected actual facility-wide emissions decrease (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____
HAPs_____

## SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU3-3

2. MDE Registration No.: (if applicable)

Date of proposed change (month/year): 01/2010

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

All emissions will be fugitive

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: _____NA_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. Electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx__0____ SOx__0___ VOC__0___ PM10__0__ HAPs_0_____

B. Projected Actual Emissions After Modification:

NOx___0___ SOx__0___ VOC__.02___ PM10__0___ HAPs____0__

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Visible Emissions.**
COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring

A. The Permittee shall visually inspect the exhaust of the oxidizer control system at least monthly for a 6-minute period when the process lines are in operation and shall record the results of each observation. If no visible emissions are observed in six consecutive monthly observations, the frequency of visual observation may decrease from monthly to quarterly.
If emissions are visible greater than 20 percent opacity from oxidizer control system, the Permittee shall perform the following unless it can be shown, through a Method 9 test, that the visible emissions are zero percent opacity:
(a) inspect all process and/or control equipment related to emission point;
(b) perform all necessary repairs and/or adjustments to the oxidizers, within 48 hours, so that visible emissions in the exhaust gases are less than 20 percent opacity; and
(c) document, in writing, the results of the inspections and the repairs and/or adjustments made to the oxidizer control system.
If visible emissions greater than 20% opacity have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily when the process lines are in operation until the visible emissions have been reduced to less than 20 percent opacity. **[Reference: COMAR 26.11.03.06C]**

Testing:

A. None.

Record Keeping:

A. The Permittee shall keep records of results of visual emission observations and document any incidence of visible emissions and corrective action taken by the Permittee. **[Reference: COMAR 26.11.03.06C].**

Reporting:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations".

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.19.30E

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Control of Volatile Organic Compounds**
COMAR 26.11.19.30E – General Requirements for FPM Installations.
(1) "A person who owns or operates a FPM installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.

(6) A person who owns or operates a FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in E (2), (3), and (4) of this regulation."

## Compliance Demonstration:

Methods used to demonstrate compliance:

Monitoring:

B. For the oxidizer control system, the combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating." [Reference: **COMAR 26.11.19.30E(2)].**
The Permittee shall perform checks semi-annually on the thermocouples that monitor the temperatures to the oxidizer control system for accuracy. **[Reference: COMAR 26.11.03.06C].**

Testing:

B. **COMAR 26.11.19.30 F.** – "Compliance with this regulation shall be demonstrated using the applicable

VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department." The Permittee shall conduct performance testing of the primary oxidizer in the control system once during the 5-year term of the permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to proposed date of the test.

Record Keeping:

B. The following records shall be kept on site for a period of at least five (5) years except for the design data, which shall be retained permanently. The records shall be made available to the Department on request:

(1) . Permanent records, for the life of the equipment, of pertinent design data for the control device including manufacturer specifications and/or vendor guarantees for the control device and catalyst, catalyst requirements, design space velocity, operating limits, volume and configuration of catalyst required;

(2) Maintenance records of types and dates of work performed on the oxidizer control system;

(3) Records of the combustion chamber temperature, which shall be greater than 1400 °F any time a controlled process line is in operation; and

(4) Records of the results of destruction efficiency tests.

(5) The Permittee shall keep records of the damper position and corresponding chamber temperature on site for at least five years.

(6) The Permittee shall keep records of the semi-annual checks of the thermocouples on site for at least five years. **[Reference: COMAR 26.11.03.06C]**

Reporting:

B. The Permittee shall report results of the performance testing to the Department within 45 days after completion of the test.

The Permittee shall make the records of the thermo couple checks made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**

COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store

| |
|---|
| VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia." |

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.16C

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Control of VOC Equipment Leaks.**
COMAR 26.11.19.16C - General Requirements.
"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

D. Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall:

(1) Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for leaks at least once each calendar month;

(2) Tag any leak immediately with I.D. Number, the date leak was discovered, and the name of the person who discovered the leak. The tag is to remain in place until the leak is repaired:

(3) Take immediate action to repair/control all observed leaks that can be repaired within 48 hours;

(4) Repair all other leaking components not later than 15 days after the leak is discovered in accordance with COMAR 26.11.19.16C(4);

(5) If a replacement part is needed, it shall be ordered within 3 days after discovery of the leak and the leak shall be repaired within 48 hours after receiving the part:

(6) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and

(7) Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown.

**[Reference: COMAR 26.11.19.16C and D]**

Testing:

None.

Record Keeping:

B. The Permittee shall:

(1) Maintain a log that includes the name of the person conducting the inspection, the date on which leak inspection was made, the findings of the inspection, a list of leaks by tag identification number, the date the part was ordered, and the date the leak was repaired; and

(2) Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the leaks' occurrence.

**[Reference: COMAR 26.11.19.16C(6)]**

Reporting:

B. Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 4. CONTROL EQUIPMENT

| | |
|---|---|
| 1. Associated Emissions Units No. : | 2. Emissions Point No.: |
| 3. Type and Description of Control Equipment:<br><br>NA | |
| 4. Polutants Controlled: | 5. Control Efficiency: |
| 6. Capture Efficiency: | |

24-015-00079

015-0079


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

MDE

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph. D.
Acting Secretary


DEC 21 2010

RECEIVED
JAN 3 _ 2011
Division Director (3AP00)

Mr. Shawn Connery
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

Dear Mr. Connery:

Enclosed please find your Permit to Construct for the replacement of the existing extruder [CH2013] with a new extruder [CH20006547] to be located at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the existing boilers that you have proposed to be modified.

The new extruder [CH20006547] qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the new extruder [CH20006547] in the application for the next renewal of the Part 70 permit.

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ll

Enclosure

RECEIVED
JAN 3 _ 2011
Division Director (3AP00)

cc: Jeanette Wolfe
Shannon Heafey
B. Frank Courtright with copy of permit
EPA Region III

**KEEP PERMIT AT SITE** **CONTROL NO. B- 02914**

State of Maryland

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Acting Secretary

**DEPARTMENT OF THE ENVIRONMENT**
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-7-0045

DATE ISSUED December 21, 2010

PERMIT FEE $500.00 (PAID)

EXPIRATION DATE In accordance with COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS
W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton, MD 21921
Attn: Mr. Shawn Connery, Engineer

SITE
Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921
Cecil County
AI # 128

SOURCE DESCRIPTION

This permit to construct authorizes the installation of one (1) extruder (CH20006547) to replace existing extruder (CH2013) located in the Natural production area.

Five (5) drum dryers (CH#1045, CH#1314, CH#1381, CH#1632 & CH#2056) controlled by Oxidizer Control System (OCS) and extruder (CH#74837) located in the Natural production area.

This permit supersedes Permit to Construct No. 015-0079-7-0045 issued November 7, 2008.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration



(NOT TRANSFERABLE)

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received June 15, 1989, May 19, 1997 and June 12, 2007. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] revised to include process update in the Natural PTFE manufacturing area.
Application for Processing or Manufacturing Equipment (Form 5) received September 16, 2008 for replacement extruder [CH74837]
**Application for Processing or Manufacturing Equipment (Form 5) received November 17, 2010 for replacement extruder [CH20006547]**

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received May 19, 1997 and June 12, 2007. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] revised to include process update in the Natural PTFE manufacturing area.
Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received October 16, 2008 via email for replacement extruder [CH74837].
**Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received November 17, 2010 for replacement extruder [CH20006547].**

(c) Form 5B: Emission Data received May 19, 1997 and June 12, 2007. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] revised to include process update in the Natural PTFE manufacturing area.
Form 5B: Emission Data received October 16, 2008 via email for replacement extruder [CH74837].
**Form 5B: Emission Data received November 17, 2010 for replacement extruder [CH20006547].**

(d) Application for Permit to Construct Gas Cleaning or Emission Control Equipment received September 4, 2001. [For SARA installation]

(e) Letter dated May 23, 2007 from company requesting a process update to reflect that the Oxidizer Control System (OCS) controls the process unit. [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] received June 12, 2007.

(f) Supplemental Information [Emissions Calculations] received September 16, 2008 for replacement extruder [CH74837]
**Supplemental Information [Emissions Calculations] received November 17, 2010 for replacement extruder [CH20006547].**

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) This permit to construct will supersede permit to construct number 015-0079-7-0045 issued November 7, 2008.

(7) The addition of the extruder qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(b) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."
*Note: Application was submitted with the permit to construct application package.*

(c) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(d) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(e) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.

(2) Good Operating Practices.

(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that is consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(f) COMAR 26.11.19.16 C & D. – <u>Control of VOC Equipment Leaks</u>
"A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(g) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.
(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(h) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(c) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(d) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(g) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(h) COMAR 26.11.15.06A – Ambient Impact Requirement.
   (1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and
   (2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the dryers [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] shall be modified and operated in accordance with specifications included in the applications.

(2) Except as otherwise provided in this part, the extruders [CH74837] & [CH20006547] shall be constructed in accordance with specifications included in the incorporated applications.

(3) All VOC containing materials shall be stored in closed containers.

(4) The existing oxidizer control system (OCS) shall control emissions from the dryers [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056]. The OCS is now permitted under permit to construct number 015-6-0173.

(5) For Control Equipment
The Oxidizer Control System (OCS) consisting of three thermal oxidizers.
The Oxidizer Control System shall be equipped with temperature monitors and recorders to continuously monitor and record the combustion gas exit temperature, which shall not be less than 1400 °F any time a controlled process is in operation.
The Permittee shall perform checks semiannually on the thermocouples that monitor the temperatures to the oxidizers for accuracy. Documentation of each check shall be maintained on site for a period of at least five years and made available to the Department upon request.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Records of material usage in the dryers [Five drum dryers - CH#1045, CH#1314, CH#1381, CH#1632, & CH#2056] in the Natural PTFE manufacturing area.
(b) Monthly record of VOC material usage and days of operation of the extruders [CH74837] & [CH20006547].
(c) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(d) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

GORE
Creative Technologies Worldwide

**W. L. GORE & ASSOCIATES, INC.**
2401 SINGERLY ROAD, P.O. BOX 1220• ELKTON, MD 21922-1220
Phone 410-398-6400• Fax 410-398-5752
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**Certified Mail**

October 20, 2010

Ms. Marcellina M. Gurley, Air Permitting Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, Maryland 21230-1720

RE: Cherry Hill Plant, Part 70, Title V Permit to Operate Number 015-00079
**PTC Application: Extruder (CH20006547)**

Dear Ms. Gurley:

This application is being submitted to request a permit to construct for a new extruder (CH20006547). This extruder is being fabricated from new parts in addition to some spare parts we have in house for extruder (CH74837). This extruder will be identical to extruder CH 74837.

This extruder will be replacing an existing extruder (CH2013). The replaced extruder will remain at the Cherry Hill plant. While there are no immediate plans to put it in service, we would like to leave the permit to operate this extruder open while we evaluate our operations plans. If, at some time, extruder CH2013 is permanently removed from the plant, we will notify MDE and ask that the permit be cancelled.

In this submittal you will find two sets of applications, one contains Confidential information and the second is Non-Confidential. The package contains the following forms:

ARMA Form 5, 5A, 5B
Supporting Calculations
Title V, Minor Mod, MDE/ARMA/PER.022
Certificate of Insurance – Workers Compensation

Please feel free to call me at (410) 506-2141, if you have any questions or concerns.

Sincerely,

Keena J. Dautlick
Environmental Associate

cc: Sally Hawke, Gore-CH
Peggy Horst, Gore-EM1
Shawn Connery, Gore-CH
T5 Book

GORE AND DESIGN ARE TRADEMARKS OF W. L. GORE & ASSOCIATES, INC.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

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**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [X] Registration Update θ Initial Registration θ

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton MD 21921
City State Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

Shawn Connery, Engineer
Print Name and Title

10·20·2010
Date

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

County No: 24 (1-2)
Premises No: 0079 (3-6)
Registration Class: 7 (7)
Equipment No.: 0045 (8-11)
Data Year: 10 12 (12-13)
Application Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town State Zip ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| A | 1/11 | 10/12 | |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
**New Extruder (CH20006547), very similar to CH74837. Generated from critical spare parts.**

**5. Workmen's Compensation Coverage** WA7-63D-004150-060 (Binder/Policy Number) 3/31/11 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 1

**6B. Number of Stack/Emission Points Associated with this Equipment** 1

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [X] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other

[ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | A B C D E F |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS Electric (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [x] | | | 7* | 7 | 350 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent |
|---|---|---|---|---|
| [X] | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 |

(Total Seasons= 100%)
*Equipment will operate a total of 7 hr over a 24 hr period

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) **N** 85

**Ventilation for Associate comfort and to minimize the risk for fire.**

If not, then →

| Height Above Ground (FT) | Inside Diameter at Top | Exit Temperature (°F) | Exit Velocity (FT/SEC) |
|---|---|---|---|
| 33.5 | 8 inches | 79 | 43 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)**
**Is any of this data to be considered confidential?** Y (Y or N)

**THIS IS WORST CASE ESTIMATE**

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Fluoro-polymers pellet containing: | 9002-84-0 | | | | |
| 2. Mineral Spirits | 64742-48-9 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoropolymer Products | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoro polymer scrap | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| | 3.1 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 1.3 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | 1 | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____

**Date Rec'd. State** 11/15/10

**Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____

**Reviewed by State** Date 11/30/10 By M-Gurley

**19. Inventory Date**

| Month/Year | Equipment Code | SCC Code |
|---|---|---|
| | | 30101852 |
| 171-174 | 175-177 | 178-185 |

**20.**

| Annual Operating Rate | Maximum Design Hourly Rate | Permit to Operate Month | Transaction Date (MM/DD/YR) |
|---|---|---|---|
| | | | |
| 186-192 | 193-199 | 200-201 | 202-207 |

| Staff Code | VOC Code | SIP Code | Regulation Code | Confidentiality |
|---|---|---|---|---|
| | | | | |
| 208-210 | 211 212 | 213 214 | 215-218 | 219 |

**Point Description**

extruder (CH2000 6547)

220-238

**Action** 239

A: Add
C: Change

rm Number: 5
. 9/27/2002
Users 1-800-735-2258

Page 4 of 4
Recycled Paper

CH20006547 extruder

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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**Air and Radiation Management Administration ● Air Quality Permits Program**

## Summary of Demonstrations for Meeting the ambient impact Requirement (26.11.15.05) and the T-Bact Requirement (26.11.15.06)

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc. – Cherry Hill Plant

1. Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

| Emission Reduction Option | % Emission Reduction | COSTS Capital | COSTS Annual Operating |
|---|---|---|---|
| 1. Immediately cover wet tapes in storage (COMAR 26.11.19.30E(5a)) | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

2. Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

Ventilation for this equipment is for safety, to reduce risk of fire. Low concentrations do not support the tie in to the Oxidizer Control System. The only other way to control emissions from this unit is to implement best practices by covering wet tapes that are in storage.

3. List screening levels and highest estimated off-site concentrations (ug/m$^3$) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged fromthe installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

| | Toxic Air Pollutant | CAS Number | SCREENING LEVEL(S) 1-HR | 8-HR | Annual | OFF-SITE CONCENTRATIONS 1-HR | 8-HR | Annual |
|---|---|---|---|---|---|---|---|---|
| 1 | PTFE | 9002-84-0 | - | - | - | - | - | - |
| 2 | Mineral Spirits | 64742-48-9 | - | 1200 | - | - | 526 | - |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |

☐ If unable to use a Screening Analysis, check the box and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B(12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B(2)).

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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**Air and Radiation Management Administration ● Air Quality Permits Program**

## Emissions Data

**Fill out one Form 5B for each stack or other emission point subject to the regulations (see the General Instructions for more detail).**

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc.- Cherry Hill

1. Number Identifying this Emission Point on Required Plot Plan 019 **Safety ventilation only**
(If applicable, list company's internal I.D. CH20006547)

2. Brief description of Emission Point, Associated Equipment and Control Devices

Fluoropolymer extruder (CH20006547) .

3. Emission Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes/Hour | Hours/Day | Days/Week | Weeks/Year |
|---|---|---|---|---|---|
| | X | 20 | 20 | 7 | 50 |

Seasonal Variation: None X Winter % ____ Spring% ____ Summer% ____ Fall% ____

4. Stack Information

Height above ground (ft): 33.5
Inside Diameter at top of round stack (ft): 0.66
Exit Temperature (°F): 79
Height above structures (ft): 9.5
Dimensions at top of rectangular stack (ft): ____
Exit Velocity (ft/min): 2580
Distance to Nearest Property Line (ft): 425
Gas Volume (acfm): 1407

Dimensions of Building Stack is on (ft): Height 24 Length 500 Width 425

5. Control Devices Associated with this Stack or Emission Point

| Control Device | Number | Control Device | Number |
|---|---|---|---|
| 0. None | X | 7. Elec. Precipitator | |
| 1. Simple Cyclone | | 8. Baghouse | |
| 2. Multiple Cyclone | | 9. Thermal Afterburner | |
| 3. Spray Tower | | 10. Catalytic Afterburner | |
| 4. Absorption Tower | | 11. Other (specify) | |
| 5. Venturi Scrubber | | | |
| 6. Carbon Adsorber | | | |

6. Criteria Pollutant Emissions (attach supporting documentation)

| Criteria Pollutants | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected (lb/hr) | Operations (1) (ton/year) |
|---|---|---|---|
| Particulate Matter | 0 | 0 | 0 |
| PM10 | 0 | 0 | 0 |
| Oxides of Sulfur | 0 | 0 | 0 |
| Oxides of Nitrogen | 0 | 0 | 0 |
| Carbon Monoxide | 0 | 0 | 0 |
| VOC (total) | 1.8 | 0.66 | 0.8 |
| Lead | 0 | 0 | 0 |

7. Toxic Air Pollutant Emissions (attach supporting documentation)

| | | | ESTIMATED EMISSIONS Design Capacity | Projected Operations (1) | | Used for Form 5A, Part 3 (2) | |
|---|---|---|---|---|---|---|---|
| | Toxic Air Pollutant (list all) | CAS Number | (lb/hr) | (lb/hour) | (ton/year) | (lb/hour) | (ton/year) |
| 1 | Mineral Spirits | 64742-48-9 | **1.8** | 0.66 | **0.8** | 0.66 | **0.8** |
| 2 | inert fillers | - | | | | | |
| 3 | Propylene glycol | 57-55-6 | | | | | |
| 4 | Isopropanol (IPA, 2-propanol) | 67-63-0 | | | | | |
| 5 | Methanol | 67-56-1 | | | | | |
| 6 | Ethanol | 64-17-5 | | | | | |
| 7 | Fluroether Oils | 865-08-42 | | | | | |
| 8 | Hexane (n-Hexane) | 110-54-3 | | | | | |
| 9 | Ethylene Glycol | 107-21-1 | | | | | |
| 10 | Tertiary Butyl alcohol | 75-65-0 | | | | | |
| 11 | n-propanol (NPA, 1-propanol) | 71-23-8 | | | | | |
| 12 | Hexanol | 111-27-3 | | | | | |
| 13 | NOx (NO2) | 10102-44-0 | | | | | |
| 14 | CO | 630-08-0 | | | | | |
| 15 | APFO-Surfactant | 3825-26-1 | | | | | |
| 16 | | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.

(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxic regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

07/29/10
10:05:22

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Large Extruder CH20006547

SIMPLE TERRAIN INPUTS:
SOURCE TYPE = POINT
EMISSION RATE (G/S) = .831600E-01
STACK HEIGHT (M) = 10.2108
STK INSIDE DIAM (M) = .2042
STK EXIT VELOCITY (M/S)= 13.1064
STK GAS EXIT TEMP (K) = 299.2611
AMBIENT AIR TEMP (K) = 293.0000
RECEPTOR HEIGHT (M) = .0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 7.3152
MIN HORIZ BLDG DIM (M) = 129.5400
MAX HORIZ BLDG DIM (M) = 152.4000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .028 M**4/S**3; MOM. FLUX = 1.753 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | .0000 | 0 | .0 | .0 | .0 | .00 | .00 | .00 | NA |
| 100. | 74.23 | 6 | 3.0 | 3.0 | 10000.0 | 10.45 | 4.07 | 5.85 | SS |
| 200. | 54.61 | 6 | 2.0 | 2.0 | 10000.0 | 11.52 | 7.73 | 6.53 | SS |
| 300. | 50.89 | 6 | 2.0 | 2.0 | 10000.0 | 11.52 | 11.23 | 7.90 | SS |
| 400. | 49.26 | 6 | 1.5 | 1.5 | 10000.0 | 12.34 | 14.64 | 8.56 | SS |
| 500. | 44.95 | 6 | 1.5 | 1.5 | 10000.0 | 12.34 | 17.97 | 9.85 | SS |
| 600. | 41.50 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 21.24 | 10.12 | SS |
| 700. | 39.19 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 24.46 | 11.02 | SS |
| 800. | 36.81 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 27.63 | 12.07 | SS |
| 900. | 34.12 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 30.78 | 13.07 | SS |
| 1000. | 31.42 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 33.88 | 13.95 | SS |
| 1100. | 28.92 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 36.96 | 14.82 | SS |
| 1200. | 26.64 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 40.01 | 15.66 | SS |
| 1300. | 24.59 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 43.04 | 16.47 | SS |
| 1400. | 22.74 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 46.05 | 17.26 | SS |
| 1500. | 21.09 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 49.03 | 18.03 | SS |
| 1600. | 19.61 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 51.99 | 18.78 | SS |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1700. | 18.27 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 54.94 | 19.52 | SS |
| 1800. | 17.07 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 57.87 | 20.23 | SS |
| 1900. | 15.99 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 60.78 | 20.94 | SS |
| 2000. | 15.01 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 63.68 | 21.63 | SS |
| 2100. | 14.16 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 66.56 | 22.21 | SS |
| 2200. | 13.38 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 69.42 | 22.78 | SS |
| 2300. | 12.67 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 72.28 | 23.34 | SS |
| 2400. | 12.02 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 75.12 | 23.89 | SS |
| 2500. | 11.43 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 77.95 | 24.42 | SS |
| 2600. | 10.88 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 80.76 | 24.95 | SS |
| 2700. | 10.37 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 83.57 | 25.47 | SS |
| 2800. | 9.905 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 86.36 | 25.98 | SS |
| 2900. | 9.472 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 89.15 | 26.48 | SS |
| 3000. | 9.070 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 91.92 | 26.98 | SS |
| 3500. | 7.496 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 105.65 | 28.98 | SS |
| 4000. | 6.342 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 119.17 | 30.84 | SS |
| 4500. | 5.465 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 132.50 | 32.57 | SS |
| 5000. | 4.780 | 6 | 1.0 | 1.0 | 10000.0 | 14.85 | 145.67 | 34.21 | SS |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 74. | 86.52 | 6 | 3.0 | 3.0 | 10000.0 | 10.35 | 3.12 | 5.48 | SS |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**********
*** REGULATORY (Default) ***
PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)
**********

*** CAVITY CALCULATION - 1 ***
CONC (UG/M**3) = .0000
CRIT WS @10M (M/S) = 99.99
CRIT WS @ HS (M/S) = 99.99
DILUTION WS (M/S) = 99.99
CAVITY HT (M) = 7.32
CAVITY LENGTH (M) = 42.96
ALONGWIND DIM (M) = 129.54

*** CAVITY CALCULATION - 2 ***
CONC (UG/M**3) = .0000
CRIT WS @10M (M/S) = 99.99
CRIT WS @ HS (M/S) = 99.99
DILUTION WS (M/S) = 99.99
CAVITY HT (M) = 7.32
CAVITY LENGTH (M) = 41.77
ALONGWIND DIM (M) = 152.40

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

**********
END OF CAVITY CALCULATIONS
**********

**********
*** SUMMARY OF SCREEN MODEL RESULTS ***
**********

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 86.52 | 74. | 0. |

**********
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**********

# Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW. POLICY LIMITS ARE NO LESS THAN THOSE LISTED, ALTHOUGH POLICIES MAY INCLUDE ADDITIONAL SUBLIMIT/LIMITS NOT LISTED BELOW.

THIS CERTIFICATE VOIDS AND SUPERSEDES ALL PREVIOUSLY ISSUED CERTIFICATES TO HOLDER NAMED BELOW.

**This is to Certify that**

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

**NAME AND ADDRESS OF INSURED**

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2011 | WA7-63D-004150-060<br>WC7-631-004150-070 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All States Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| COMMERCIAL GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate<br>Products / Completed Operations Aggregate<br>Each Occurrence<br>Personal & Advertising Injury Per Person / Organization<br>Other | Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence | |
| OTHER | | | | |

ADDITIONAL COMMENTS

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

**Liberty Mutual Insurance Group**

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
Baltimore MD 21230-1720

Lisa M. Davis — Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Wayne/Phila. 0300
690 Lee Road, Suite 200
Wayne PA 19087 — OFFICE
610-644-1056 — PHONE
3/9/2010 — DATE ISSUED

icate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies

NM 772

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

RECEIVED NOV 15 2010

# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
## AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator: W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address: 2401 Singerly Road | | |
| City: Elkton | State: MD | Zip[Code: 21921 |
| Telephone Number (410) 398-6400 | | Fax Number (410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator: SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager: Sally Hawke | Telephone Number: (410) 398-6400 | Fax Number: (410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues: Keena J. Dautlick | | Title: Environmental Associate |
| Telephone Number (410) 398-6400 | | E-Mail Address: kdautlic@wlgore.com |

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Sally A. Hawke — October 26, 2010

SIGNATURE — DATE

SALLY HAWKE
PRINTED NAME

PLANT LEADER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

This application is being submitted to request a permit to construct for a new extruder (CH20006547). This extruder is being fabricated from new parts in addition to some spare parts we have in house for extruder (CH74837). This extruder will be identical to extruder CH 74837.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.
List the projected actual facility-wide emissions increase (in tons) below:

PM10_____ NOx_____ VOC___0.77___ SOx_____ CO_____

HAPs_____

☐ There will be a net decrease in emissions.
List the projected actual facility-wide emissions decrease (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____

HAPs_____

## SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **Insignificant Activity**

2. MDE Registration No.: (if applicable)

Date of proposed change (month/year): October 2012

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

CH20006547 Fluoropolymer Extruder (emission point #019)

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: n/a

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 0 SOx 0 VOC 0.0 PM10 0 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 0 SOx 0 VOC 0.8 PM10 0 HAPs 0

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**
COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

24-015-00079

015-0079

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

MAR 06 2012

Mr. Ed Kozlowski
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

RECEIVED
MAR 12 2012
3AP20

Dear: Mr. Kozlowski:

Enclosed please find your permit to construct for the modification of Mini-Tec dryer located in the R&D Area at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the existing boilers that you have proposed to be modified.

The addition of the Mini-Tec dryer qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the addition of the Mini-Tec dryer in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ss

Enclosure

cc: Jeanette Wolfe
B. Frank Courtright with copy of permit
EPA Region III

**KEEP PERMIT AT SITE** **CONTROL NO. B- 03421**

*State of Maryland*

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-6-0311 DATE ISSUED March 06, 2012

PERMIT FEE $500.00 (PAID) EXPIRATION DATE In Accordance With COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**

W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton, MD 21921
Attn: Mr. Ed Kozlowski

**SITE**

Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921
Cecil County
AI # 128

**SOURCE DESCRIPTION**

Modification of one (1) Mini-Tec Dryer to process materials wet with solvents

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

**W.L. GORE & ASSOCIATES, INC.**
**CHERRY HILL PLANT**
**PERMIT TO CONSTRUCT CONDITIONS**
**PERMIT NO. 015-0079-6-0311**

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received February 1, 2012 for Mini-Tec Dryer located in the R&D Area.

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received February 1, 2012 for Mini-Tec Dryer located in the R&D Area

(c) Form 5B: Emission Data received February 1, 2012 for Mini-Tec Dryer located in the R&D Area.

(d) Supplemental Information [Emission Calculations & Toxic Analysis] received February 1, 2012 for Mini-Tec Dryer located in the R&D Area.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.04 - Duration of Permits
"B. Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:
(1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
(2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
(3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval."

(b) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."

(d) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(e) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(f) COMAR 26.11.19.02 - Good Operating Practices, Equipment Cleanup, and VOC Storage.
"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.

(2) Good Operating Practices

(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(g) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks
"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the

source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(h) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.

"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.

(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:

(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation; and

(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and

(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and

(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.

(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.

(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:

(a) Immediately enclosing all wet FPM during storage; and

(b) Covering dipping troughs when not in operation.

(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(i) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(d) COMAR 26.11.15.06A – Ambient Impact Requirement.
(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and
(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the Mini-Tec dryer located in the R&D Area shall be modified and operated in accordance with specifications included in the applications.

(2) All VOC containing materials shall be stored in closed containers.

(3) The existing oxidizer control system (OCS) shall control emissions from the Mini-Tec dryer. The OCS is now permitted under permit to construct number 015-0079-6-0173.

(4) For Control Equipment
The Oxidizer Control System (OCS) consisting of three thermal oxidizers.
The Oxidizer Control System shall be equipped with temperature monitors and recorders to continuously monitor and record the combustion gas exit temperature, which shall not be less than 1400 °F or other temperature approved by the Department any time a controlled process is in operation.
The Permittee shall perform checks semiannually on the thermocouples that monitor the temperatures to the oxidizers for accuracy. Documentation of each check shall be maintained on site for a period of at least five years and made available to the Department upon request.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Records of material usage for Mini-Tec dryer located in the R&D Area.

(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.

(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

FEB 01 2012

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [X] Registration Update θ Initial Registration θ

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

County No. 01 5 (1-2)
Premises No. 0 0 7 9 (3-6)
Registration Class 6 (7)
Equipment No. 0311 (8-11)
Data Year 1 2 (12-13)
Application Date

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton — MD — 21921
City — State — Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

Ed Kozlowski
Print Name and Title

1/30/12
Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town — State — Zip — ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY)* | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| C | 04/12 | 05/12 | 06/99 |
| 15 | 16-19 | 20-23 | 20-23 |

*Existing oven is being modified to handle solvent.

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
Imbiber overn (mini-flotation dryer)

**5. Workmen's Compensation Coverage** WA7-63D-004150-061 (Binder/Policy Number) 3/31/2012 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 0

**6B. Number of Stack/Emission Points Associated with this Equipment** 1 Stack

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [ ] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other

[ ] Describe OXIDIZER CONTROL SYSTEM (OCS)

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | 600 | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | A B C D E F |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [X] | | | 16 | 5 | 200 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent |
|---|---|---|---|---|
| X | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 |

(Total Seasons= 100%)

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) **N** (85)
**BASED ON LEAD OXIDIZER IN OCS. WILLIE**

If not, then → Height Above Ground (FT): **47** (86-88) | Inside Diameter at Top: **3.4** (89-91) | Exit Temperature (°F): **325** (92-95) | Exit Velocity (FT/SEC): **42.7** (96-98)

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)** **THIS IS WORST CASE ESTIMATE**
**Is any of this data to be considered confidential?** Y (Y or N)

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Fluoro-polymers | | | | | |
| 2. VOC | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. PTFE Products | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. PTFE | | | | | |
| 2. VOC (after control) | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| .21 | .01 | 3.9 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 2.25 | 4.87 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 2.8 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** **(1= Estimate 2= Emission Factor 3= Stack Test 4= Other)**

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | 2 | 2 | 2 | 1 | 2 |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____ **Date Rec'd. State** _____ **Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____ **Reviewed by State** Date_____ By_____

**19. Inventory Date** **Month/Year** (171-174) **Equipment Code** (175-177) **SCC Code** (178-185)

**20. Annual Operating Rate** (186-192) **Maximum Design Hourly Rate** (193-199) **Permit to Operate Month** (200-201) **Transaction Date (MM/DD/YR)** (202-207)

**Staff Code** (208-210) **VOC Code** (211 212) **SIP Code** (213 214) **Regulation Code** (215-218) **Confidentiality** (219)

**Point Description** (220-238) **Action** (239) A: Add C: Change

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
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**Air and Radiation Management Administration ● Air Quality Permits Program**

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# Summary of Demonstrations for Meeting the ambient impact Requirement (26.11.15.05) and the T-Bact Requirement (26.11.15.06)

RECEIVED FEB 01 2012 By

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc. – Cherry Hill Plant

1. Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

| Emission Reduction Option | % Emission Reduction | COSTS Capital | COSTS Annual Operating |
|---|---|---|---|
| 1. Oxidizer Control System (OCS) which includes the following oxidizers | | | |
| Willie (OX#3) | 98.05% | | |
| SARA (OX#1 | 99.2% | | |
| T-Ox (OX#2) | 99.1% | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

2. Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

The OCS is already installed at the site and provides greater than 98% destruction efficiency.

3. List screening levels and highest estimated off-site concentrations (ug/m$^3$) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged from the installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

| | Toxic Air Pollutant | CAS Number | OFF-SITE SCREENING LEVEL(S) 1-HR | 8-HR | Annual | OFF-SITE CONCENTRATIONS 1-HR | 8-HR | Annual |
|---|---|---|---|---|---|---|---|---|
| 1 | PTFE | 9002-84-0 | - | - | - | - | - | - |
| 2 | Mineral Spirits | 64742-48-9 | - | 12,000 | - | - | 529 | - |
| 3 | Propylene glycol | 57-55-6 | - | 308 | - | - | 63 | - |
| 4 | Fluoroether Oils | 865-08-42 | - | - | - | - | 35 | - |
| 5 | Ethylene Glycol | 107-21-1 | 1,000 | - | - | 44 | - | - |
| 6 | Hexanol | 111-27-3 | - | 27 | - | - | 12 | - |
| 7 | | | | | | | | |
| 8 | | | | | | | | |

☐ If unable to use a Screening Analysis, check the box and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B(12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B(2)).

RECEIVED
FEB 01 2012

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**Air and Radiation Management Administration ● Air Quality Permits Program**

# Emissions Data

**Fill out one Form 5B for each stack or other emission point subject to the regulations (see the General Instructions for more detail).**

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc.- Cherry Hill

1. Number Identifying this Emission Point on Required Plot Plan _____
   (If applicable, list company's internal I.D. Mini Flotation Dryer in R&D Area

2. Brief description of Emission Point, Associated Equipment and Control Devices

   Flotation Dryer controlled by the OCS

3. Emission Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes/Hour | Hours/Day | Days/Week | Weeks/Year |
|---|---|---|---|---|---|
| | X | 60 | 16 | 5 | 50 |

Seasonal Variation: None X Winter %_____ Spring%_____ Summer%_____ Fall%_____

4. Stack Information **WILLIE Oxidizer**

Height above ground (ft): 47.24
Inside Diameter at top of round stack (ft): 3.4 ft
Exit Temperature (°F): 325 F
Height above structures (ft): _____
Dimensions at top of rectangular stack (ft): _____
Exit Velocity (ft/min): 2560
Distance to Nearest Property Line (ft): 425 ft.
Gas Volume (acfm): 265

Dimensions of Building Stack is on (ft): Height 24 Length 425 Width 500

5. Control Devices Associated with this Stack or Emission Point

| Control Device | Number | Control Device | Number |
|---|---|---|---|
| 0. None | | 7. Elec. Precipitator | |
| 1. Simple Cyclone | | 8. Baghouse | |
| 2. Multiple Cyclone | | 9. Thermal Afterburner | ocs |
| 3. Spray Tower | | 10. Catalytic Afterburner | |
| 4. Absorption Tower | | 11. Other (specify) | |
| 5. Venturi Scrubber | | | |
| 6. Carbon Adsorber | | | |

6. Criteria Pollutant Emissions (attach supporting documentation)

| Criteria Pollutants | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected (lb/hr) | Operations (1) (ton/year) |
|---|---|---|---|
| Particulate Matter | 0.013 | 0.013 | 0.21 |
| PM10 | 0 | 0 | 0 |
| Oxides of Sulfur | 0 | 0 | 0 |
| Oxides of Nitrogen | 0.24 | 0.24 | 0.39 |
| Carbon Monoxide | 0.14 | 0.14 | .225 |
| VOC (total) | 0.485 | 0.567 | 0.907 |
| Lead | 0 | 0 | 0 |

7. Toxic Air Pollutant Emissions (attach supporting documentation)

| | Toxic Air Pollutant (list all) | CAS Number | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected Operations (1) (lb/hour) | Projected Operations (1) (ton/year) | Used for Form 5A, Part 3 (2) (lb/hour) | Used for Form 5A, Part 3 (2) (ton/year) |
|---|---|---|---|---|---|---|---|
| 1 | Mineral Spirits | 64742-48-9 | 0.55 | 0.55 | 0.88 | 0.55 | 0.88 |
| 2 | Propylene glycol | 57-55-6 | 0.55 | 0.55 | 0.88 | 0.55 | 0.88 |
| 3 | Fluoroether Oils | 865-08-42 | 0.55 | 0.55 | 0.88 | 0.55 | 0.88 |
| 4 | Ethylene Glycol | 107-21-1 | 0.55 | 0.55 | 0.88 | 0.55 | 0.88 |
| 5 | Hexanol | 111-27-3 | 0.18 | 0.18 | 0.23 | 0.18 | 0.23 |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.
(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxic regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

01/28/12
14:48:15

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

C:\Lakes\Screen View\Keena's Runs\minitecdryer.scr

SIMPLE TERRAIN INPUTS:

| | | |
|---|---|---|
| SOURCE TYPE | = | POINT |
| EMISSION RATE (G/S) | = | 0.695508E-01 |
| STACK HEIGHT (M) | = | 14.3256 |
| STK INSIDE DIAM (M) | = | 1.0363 |
| STK EXIT VELOCITY (M/S) | = | 13.0150 |
| STK GAS EXIT TEMP (K) | = | 435.9278 |
| AMBIENT AIR TEMP (K) | = | 293.0000 |
| RECEPTOR HEIGHT (M) | = | 1.8288 |
| URBAN/RURAL OPTION | = | RURAL |
| BUILDING HEIGHT (M) | = | 7.3152 |
| MIN HORIZ BLDG DIM (M) | = | 129.5400 |
| MAX HORIZ BLDG DIM (M) | = | 152.4000 |

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 11.235 M**4/S**3; MOM. FLUX = 30.568 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 0.000 | 1 | 1.0 | 1.0 | 320.0 | 142.54 | 2.32 | 2.29 | NO |
| 100. | 3.470 | 4 | 15.0 | 15.8 | 4800.0 | 17.80 | 8.32 | 9.86 | HS |
| 200. | 2.010 | 4 | 15.0 | 15.8 | 4800.0 | 20.66 | 15.72 | 13.22 | HS |
| 300. | 1.625 | 4 | 15.0 | 15.8 | 4800.0 | 21.23 | 22.74 | 16.33 | HS |
| 400. | 1.471 | 4 | 10.0 | 10.6 | 3200.0 | 26.23 | 29.67 | 19.48 | HS |
| 500. | 1.326 | 4 | 8.0 | 8.4 | 2560.0 | 29.90 | 36.42 | 22.48 | HS |
| 600. | 1.200 | 4 | 8.0 | 8.4 | 2560.0 | 29.90 | 42.95 | 25.23 | HS |
| 700. | 1.072 | 4 | 8.0 | 8.4 | 2560.0 | 29.90 | 49.39 | 27.92 | HS |
| 800. | 0.9937 | 4 | 5.0 | 5.3 | 1600.0 | 39.24 | 56.03 | 27.71 | NO |
| 900. | 0.9624 | 4 | 5.0 | 5.3 | 1600.0 | 39.24 | 62.29 | 30.31 | NO |
| 1000. | 0.9178 | 4 | 4.5 | 4.7 | 1440.0 | 42.01 | 68.58 | 33.05 | NO |
| 1100. | 0.8681 | 4 | 4.5 | 4.7 | 1440.0 | 42.01 | 74.73 | 35.03 | NO |
| 1200. | 0.8255 | 4 | 4.0 | 4.2 | 1280.0 | 45.47 | 80.93 | 37.17 | NO |
| 1300. | 0.7840 | 4 | 4.0 | 4.2 | 1280.0 | 45.47 | 86.98 | 39.03 | NO |
| 1400. | 0.7497 | 4 | 3.5 | 3.7 | 1120.0 | 49.92 | 93.11 | 41.14 | NO |
| 1500. | 0.7168 | 4 | 3.5 | 3.7 | 1120.0 | 49.92 | 99.07 | 42.89 | NO |
| 1600. | 0.6845 | 4 | 3.0 | 3.2 | 960.0 | 55.85 | 105.16 | 45.03 | NO |
| 1700. | 0.6597 | 4 | 3.0 | 3.2 | 960.0 | 55.85 | 111.04 | 46.70 | NO |
| 1800. | 0.6350 | 4 | 3.0 | 3.2 | 960.0 | 55.85 | 116.89 | 48.34 | NO |
| 1900. | 0.6222 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 93.15 | 37.20 | NO |
| 2000. | 0.6455 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 97.42 | 38.13 | NO |
| 2100. | 0.6613 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 101.68 | 38.97 | NO |
| 2200. | 0.6748 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 105.92 | 39.79 | NO |
| 2300. | 0.6862 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 110.14 | 40.60 | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2400. | 0.6956 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 114.35 | 41.40 | NO |
| 2500. | 0.7032 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 118.55 | 42.19 | NO |
| 2600. | 0.7092 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 122.73 | 42.97 | NO |
| 2700. | 0.7138 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 126.90 | 43.74 | NO |
| 2800. | 0.7170 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 131.06 | 44.50 | NO |
| 2900. | 0.7190 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 135.20 | 45.25 | NO |
| 3000. | 0.7199 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 139.33 | 45.99 | NO |
| 3500. | 0.7120 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 159.80 | 49.59 | NO |
| 4000. | 0.6904 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 179.98 | 53.00 | NO |
| 4500. | 0.6949 | 6 | 1.0 | 1.2 | 10000.0 | 66.04 | 133.32 | 35.77 | NO |
| 5000. | 0.6941 | 6 | 1.0 | 1.2 | 10000.0 | 66.04 | 146.42 | 37.26 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 65. | 4.159 | 4 | 20.0 | 21.1 | 6400.0 | 15.27 | 5.63 | 8.11 | HS |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

```
****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
```

| *** CAVITY CALCULATION - 1 *** | | | *** CAVITY CALCULATION - 2 *** | | |
|---|---|---|---|---|---|
| CONC (UG/M**3) | = | 0.000 | CONC (UG/M**3) | = | 0.000 |
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 7.32 | CAVITY HT (M) | = | 7.32 |
| CAVITY LENGTH (M) | = | 42.96 | CAVITY LENGTH (M) | = | 41.77 |
| ALONGWIND DIM (M) | = | 129.54 | ALONGWIND DIM (M) | = | 152.40 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
****************************************
      END OF CAVITY CALCULATIONS
****************************************
```

```
****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 4.159 | 65. | 0. |

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

01/28/12
14:51:44

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

C:\Lakes\Screen View\Keena's Runs\minitecdryer.scr

SIMPLE TERRAIN INPUTS:

| | | |
|---|---|---|
| SOURCE TYPE | = | POINT |
| EMISSION RATE (G/S) | = | 0.231836E-01 |
| STACK HEIGHT (M) | = | 14.3256 |
| STK INSIDE DIAM (M) | = | 1.0363 |
| STK EXIT VELOCITY (M/S) | = | 13.0150 |
| STK GAS EXIT TEMP (K) | = | 435.9278 |
| AMBIENT AIR TEMP (K) | = | 293.0000 |
| RECEPTOR HEIGHT (M) | = | 1.8288 |
| URBAN/RURAL OPTION | = | RURAL |
| BUILDING HEIGHT (M) | = | 7.3152 |
| MIN HORIZ BLDG DIM (M) | = | 129.5400 |
| MAX HORIZ BLDG DIM (M) | = | 152.4000 |

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 11.235 M**4/S**3; MOM. FLUX = 30.568 M**4/S**2.

*** FULL METEOROLOGY ***

**********
*** SCREEN AUTOMATED DISTANCES ***
**********

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 0.000 | 1 | 1.0 | 1.0 | 320.0 | 142.54 | 2.32 | 2.29 | NO |
| 100. | 1.157 | 4 | 15.0 | 15.8 | 4800.0 | 17.80 | 8.32 | 9.86 | HS |
| 200. | 0.6701 | 4 | 15.0 | 15.8 | 4800.0 | 20.66 | 15.72 | 13.22 | HS |
| 300. | 0.5418 | 4 | 15.0 | 15.8 | 4800.0 | 21.23 | 22.74 | 16.33 | HS |
| 400. | 0.4904 | 4 | 10.0 | 10.6 | 3200.0 | 26.23 | 29.67 | 19.48 | HS |
| 500. | 0.4420 | 4 | 8.0 | 8.4 | 2560.0 | 29.90 | 36.42 | 22.48 | HS |
| 600. | 0.4001 | 4 | 8.0 | 8.4 | 2560.0 | 29.90 | 42.95 | 25.23 | HS |
| 700. | 0.3574 | 4 | 8.0 | 8.4 | 2560.0 | 29.90 | 49.39 | 27.92 | HS |
| 800. | 0.3312 | 4 | 5.0 | 5.3 | 1600.0 | 39.24 | 56.03 | 27.71 | NO |
| 900. | 0.3208 | 4 | 5.0 | 5.3 | 1600.0 | 39.24 | 62.29 | 30.31 | NO |
| 1000. | 0.3059 | 4 | 4.5 | 4.7 | 1440.0 | 42.01 | 68.58 | 33.05 | NO |
| 1100. | 0.2894 | 4 | 4.5 | 4.7 | 1440.0 | 42.01 | 74.73 | 35.03 | NO |
| 1200. | 0.2752 | 4 | 4.0 | 4.2 | 1280.0 | 45.47 | 80.93 | 37.17 | NO |
| 1300. | 0.2613 | 4 | 4.0 | 4.2 | 1280.0 | 45.47 | 86.98 | 39.03 | NO |
| 1400. | 0.2499 | 4 | 3.5 | 3.7 | 1120.0 | 49.92 | 93.11 | 41.14 | NO |
| 1500. | 0.2389 | 4 | 3.5 | 3.7 | 1120.0 | 49.92 | 99.07 | 42.89 | NO |
| 1600. | 0.2282 | 4 | 3.0 | 3.2 | 960.0 | 55.85 | 105.16 | 45.03 | NO |
| 1700. | 0.2199 | 4 | 3.0 | 3.2 | 960.0 | 55.85 | 111.04 | 46.70 | NO |
| 1800. | 0.2117 | 4 | 3.0 | 3.2 | 960.0 | 55.85 | 116.89 | 48.34 | NO |
| 1900. | 0.2074 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 93.15 | 37.20 | NO |
| 2000. | 0.2152 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 97.42 | 38.13 | NO |
| 2100. | 0.2204 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 101.68 | 38.97 | NO |
| 2200. | 0.2249 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 105.92 | 39.79 | NO |
| 2300. | 0.2287 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 110.14 | 40.60 | NO |
| 2400. | 0.2319 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 114.35 | 41.40 | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2500. | 0.2344 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 118.55 | 42.19 | NO |
| 2600. | 0.2364 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 122.73 | 42.97 | NO |
| 2700. | 0.2379 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 126.90 | 43.74 | NO |
| 2800. | 0.2390 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 131.06 | 44.50 | NO |
| 2900. | 0.2397 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 135.20 | 45.25 | NO |
| 3000. | 0.2400 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 139.33 | 45.99 | NO |
| 3500. | 0.2373 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 159.80 | 49.59 | NO |
| 4000. | 0.2301 | 5 | 1.0 | 1.1 | 10000.0 | 78.16 | 179.98 | 53.00 | NO |
| 4500. | 0.2316 | 6 | 1.0 | 1.2 | 10000.0 | 66.04 | 133.32 | 35.77 | NO |
| 5000. | 0.2314 | 6 | 1.0 | 1.2 | 10000.0 | 66.04 | 146.42 | 37.26 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 65. | 1.386 | 4 | 20.0 | 21.1 | 6400.0 | 15.27 | 5.63 | 8.11 | HS |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

```
****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
```

| *** CAVITY CALCULATION - 1 *** | | | *** CAVITY CALCULATION - 2 *** | | |
|---|---|---|---|---|---|
| CONC (UG/M**3) | = | 0.000 | CONC (UG/M**3) | = | 0.000 |
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 7.32 | CAVITY HT (M) | = | 7.32 |
| CAVITY LENGTH (M) | = | 42.96 | CAVITY LENGTH (M) | = | 41.77 |
| ALONGWIND DIM (M) | = | 129.54 | ALONGWIND DIM (M) | = | 152.40 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
****************************************
      END OF CAVITY CALCULATIONS
****************************************
```

```
****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 1.386 | 65. | 0. |

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address:<br>2401 Singerly Road | | |
| City:<br>Elkton | State:<br>MD | Zip[Code:<br>21921 |
| Telephone Number<br>(410) 398-6400 | | Fax Number<br>(410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager:<br>Sally Hawke | Telephone Number:<br>(410) 398-6400 | Fax Number:<br>(410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues:<br>Keena J. Dautlick | | Title:<br>Environmental Associate |
| Telephone Number<br>(410) 398-6400 | | E-Mail Address:<br>kdautlic@wlgore.com |

## SECTION II. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Sally A. Hawke January 30, 2012

SIGNATURE DATE

SALLY HAWKE
PRINTED NAME

PLANT LEADER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

## SECTION 2: MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

The Mini-Tec Dryer currently dries water based material. It will be modified so that in the future, this propane dryer will dry fluoropolymer materials with solvent for research and development. Emissions will be vented to the oxidizer control system.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.

List the projected actual facility-wide emissions increase (in tons) below:

PM10____ NOx 0.39 VOC 0.907 SOx____ CO 0.225

HAPs____

☐ There will be a net decrease in emissions.

List the projected actual facility-wide emissions decrease (in tons) below:

PM10____ NOx____ VOC____ SOx____ CO____

HAPs____

## SECTION 3A: EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-3-2

2. MDE Registration No.: (if applicable)

New

Date of proposed change (month/year): 04/12

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Mini-Tec Dryer controlled by oxidizer control system. Emission point is OCS.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: _____NA_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. Propane | | 60,000 gallons |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 0 SOx 0 VOC 0 PM10 0 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 0.39 SOx 0 VOC 0.907 PM10 0 HAPs 0

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Visible Emissions.**
COMAR 26.11.06.02C(1) – Visible Emission Standards. "A person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring

A. The Permittee shall visually inspect the exhaust of the oxidizer control system at least monthly for a 6-minute period when the process lines are in operation and shall record the results of each observation. If no visible emissions are observed in six consecutive monthly observations, the frequency of visual observation may decrease from monthly to quarterly.
If emissions are visible greater than 20 percent opacity from oxidizer control system, the Permittee shall perform the following unless it can be shown, through a Method 9 test, that the visible emissions are zero percent opacity:
(a) inspect all process and/or control equipment related to emission point;
(b) perform all necessary repairs and/or adjustments to the oxidizers, within 48 hours, so that visible emissions in the exhaust gases are less than 20 percent opacity; and
(c) document, in writing, the results of the inspections and the repairs and/or adjustments made to the oxidizer control system.
If visible emissions greater than 20% opacity have not been eliminated within 48 hours, the Permittee shall perform a Method 9 observation once daily when the process lines are in operation until the visible emissions have been reduced to less than 20 percent opacity. **[Reference: COMAR 26.11.03.06C]**

Testing:

A. None.

Record Keeping:

A. The Permittee shall keep records of results of visual emission observations and document any incidence of visible emissions and corrective action taken by the Permittee. **[Reference: COMAR 26.11.03.06C].**

Reporting:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations".

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.06.03B(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Particulate Matter**.
COMAR 26.11.06.03B(1) – Particulate Matter from Confined Sources. "A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/scfd (115 kg/dscm)."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall develop and maintain a preventive maintenance plan for the oxidizer control system that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the time frames established in the plan and shall maintain a log with records of the dates and description of the maintenance that was performed. **[Reference: COMAR 26.11.03.06C].**

Testing:

B. None.

Record Keeping:

B. The Permittee shall maintain a copy of the preventive maintenance plan and a record of the dates of and description of maintenance activity performed. The Permittee shall maintain records of the oxidizer control system malfunctions and the corrective actions taken to bring into proper operation. **[Reference: COMAR 26.11.03.06C].**

Reporting:

B. The Permittee shall submit a copy of the preventive maintenance plan, records of maintenance activities and corrective actions taken upon request. **[Reference: COMAR 26.11.03.06C].**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** EU 3-1, EU 3-2, EU 3-3 & EU 3-4 **General Reference:** COMAR 26.11.19.30E

Briefly describe the Emission Standard/Limit or Operational Limitation:

C. **Control of Volatile Organic Compounds**
COMAR 26.11.19.30E – General Requirements for PTFE Installations.
(1) "A person who owns or operates a PTFE installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the PTFE installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates PTFE compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet PTFE during storage; and
(b) Covering dipping troughs when not in operation.

(6) A person who owns or operates a PTFE coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in E (2), (3), and (4) of this regulation."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

C. For the oxidizer control system, the combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400 °F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;
(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the PTFE installation unless the approved control system is operating." [Reference: **COMAR 26.11.19.30E(2)**].
The Permittee shall perform checks semi-annually on the thermocouples that monitor the temperatures to the oxidizer control system for accuracy. **[Reference: COMAR 26.11.03.06C].**

Testing:

C. **COMAR 26.11.19.30 F.** – "Compliance with this regulation shall be demonstrated using the applicable

VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department." The Permittee shall conduct performance testing of the primary oxidizer in the control system once during the 5-year term of the permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to proposed date of the test.

Record Keeping:

C. The following records shall be kept on site for a period of at least five (5) years except for the design data, which shall be retained permanently. The records shall be made available to the Department on request:
   (1) Permanent records, for the life of the equipment, of pertinent design data for the control device including manufacturer specifications and/or vendor guarantees for the control device and catalyst, catalyst requirements, design space velocity, operating limits, volume and configuration of catalyst required;
   (2) Maintenance records of types and dates of work performed on the oxidizer control system;
   (3) Records of the combustion chamber temperature, which shall be greater than 1400 °F any time a controlled process line is in operation; and
   (4) Records of the results of destruction efficiency tests.
   (5) The Permittee shall keep records of the damper position and corresponding chamber temperature on site for at least five years.
   (6) The Permittee shall keep records of the semi-annual checks of the thermocouples on site for at least five years. **[Reference: COMAR 26.11.03.06C]**

Reporting:

C. The Permittee shall report results of the performance testing to the Department within 45 days after completion of the test.

The Permittee shall make the records of the thermo couple checks made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**

COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store

| |
|---|
| VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia." |

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.16C

Briefly describe the Emission Standard/Limit or Operational Limitation:

B. **Control of VOC Equipment Leaks.**
COMAR 26.11.19.16C - General Requirements.
"A person subject to this regulation shall comply with all of the following requirements:

(1) Visually inspect all components on the premises for leaks at least once each calendar month.

(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.

(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

D. Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

**Compliance Demonstration:**

Methods used to demonstrate compliance:

Monitoring:

B. The Permittee shall:

(1) Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for leaks at least once each calendar month;

(2) Tag any leak immediately with I.D. Number, the date leak was discovered, and the name of the person who discovered the leak. The tag is to remain in place until the leak is repaired;

(3) Take immediate action to repair/control all observed leaks that can be repaired within 48 hours;

(4) Repair all other leaking components not later than 15 days after the leak is discovered in accordance with COMAR 26.11.19.16C(4);

(5) If a replacement part is needed, it shall be ordered within 3 days after discovery of the leak and the leak shall be repaired within 48 hours after receiving the part;

(6) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and

(7) Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown.

**[Reference: COMAR 26.11.19.16C and D]**

Testing:

None.

Record Keeping:

B. The Permittee shall:

(1) Maintain a log that includes the name of the person conducting the inspection, the date on which leak inspection was made, the findings of the inspection, a list of leaks by tag identification number, the date the part was ordered, and the date the leak was repaired; and

(2) Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the leaks' occurrence.

**[Reference: COMAR 26.11.19.16C(6)]**

Reporting:

B. Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 4: CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : | 2. Emissions Point No.: |
|---|---|
| EU-3-2 | Oxidizer Control System |

3. Type and Description of Control Equipment:

Oxidizer Control System (OCS), which consists of three thermal oxidizers:
Willie (Oxidizer #3)
SARA (Oxidizer #1)
Tec (Oxidizer #2)

| 4. Pollutants Controlled: | 5. Control Efficiency: |
|---|---|
| VOC | Oxidizer #3: 98.05% (9/11)<br>Oxidizer #1: 99.2% (9/11)<br>Oxidizer #2: 99.1% (6/98) |

6. Capture Efficiency:
Oxidizer #3: 99.3%
Oxidizer #1: 99.3%
Oxidizer #2: 98.3%

**KEEP PERMIT AT SITE** **CONTROL NO. B- 03507**

State of Maryland

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-6-0317 DATE ISSUED May 31, 2012

PERMIT FEE $500.00 (PAID) EXPIRATION DATE In Accordance With COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**
W.L. Gore & Associates, Inc. – Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921
Attn: Mr. David Koo, Engineer

**SITE**
W.L. Gore & Associates, Inc. – Cherry Hill Plant
SAME
Cecil County
AI # 128

**SOURCE DESCRIPTION**
This permit authorizes the installation of one (1) extruder (CH20000806) located in the Natural FPM Production Area.

RECEIVED
JUN 05 2012
JAF 20

This source is subject to the conditions described on the attached pages.



William Paul for KI
Program Manager

Angela Branco
Director, Air and Radiation Management Administration

MDE/ARMA/PER.009 (Rev. 10-08-03) (NOT TRANSFERABLE)

# W.L. GORE & ASSOCIATES, INC.
# CHERRY HILL
# PERMIT TO CONSTRUCT CONDITIONS
# PERMIT NO. 015-0079-6-0317

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

---

## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received April 23, 2012 for the installation of one (1) extruder **[CH20000806]** to be located in the Natural Area.

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received April 23, 2012 for the installation of one (1) extruder **[CH20000806]** to be located in the Natural Area.

(c) Form 5B: Emission Data received April 23, 2012 for the installation of one (1) extruder **[CH20000806]** to be located in the Natural Area.

(d) Supplemental Information [Emissions Calculations] received April 23, 2012 for the installation of one (1) extruder **[CH20000806]** to be located in the Natural Area.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The addition of one (1) extruder qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.04B – Duration of Permit
"Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:
(1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
(2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
(3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.'

(b) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."
*Note: Application was submitted with the permit to construct application package.*

(d) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(e) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(f) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.
"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.
(2) Good Operating Practices.
(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
(b) Good operating practices shall, at a minimum, include the following:
(i) Provisions for training of operators on practices, procedures, and maintenance requirements that is consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(g) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks
"A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.
Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(h) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;

(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.
(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(i) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(d) COMAR 26.11.15.06A – Ambient Impact Requirement.
(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the

satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the extruder [CH20000806] shall be constructed in accordance with specifications included in the incorporated applications.

(2) Except as otherwise provided in this part, the extruder [CH20000806] shall be operated in accordance with specifications included in the applications and ay operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Monthly record of VOC material usage and days of operation of the extruder [CH20000806].
(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

RECEIVED APR 23 2012

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [X] Registration Update θ Initial Registration θ

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton MD 21921
City State Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

David Koo, Engineer
Print Name and Title

4/17/2012
Date

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

County No. 015 (1-2)
Premises No. 0079 (3-6)
Registration Class 6 (7)
Equipment No. 0317 (8-11)
Data Year 12 (12-13)
Application Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town State Zip ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| A | 10/12 | 03/13 | |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
**New Extruder (CH20000806), very similar to CH74837.**

**5. Workmen's Compensation Coverage** WA7-63D-004150-062 (Binder/Policy Number) 3/31/13 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 1

**6B. Number of Stack/Emission Points Associated with this Equipment** 1

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [X] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other [ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | A B C D E F |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS Electric (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [x] | [ ] | [ ] | 20 | 7 | 353 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent |
|---|---|---|---|---|
| [X] | [ ] | [ ] | [ ] | [ ] |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 |

(Total Seasons= 100%)

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) N 85

**Ventilation for Associate comfort and to minimize the risk for fire.**

If not, then → Height Above Ground (FT): 65 (86-88) | Inside Diameter at Top: 40 inches (89-91) | Exit Temperature (°F): 75 (92-95) | Exit Velocity (FT/SEC): 57 (96-98)

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)**
**Is any of this data to be considered confidential?** Y (Y or N) **THIS IS WORST CASE ESTIMATE**

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Fluoro-polymers pellet containing: | 9002-84-0 | | | | |
| 2. Mineral Spirits | 64742-48-9 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoropolymer Products | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoro polymer scrap | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| | 8.1 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 3.5 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | 1 | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____

**Date Rec'd. State** 4/23/12

**Return to Local Jurisdiction** Date _____ By _____

**Reviewed by Local Jurisdiction** Date _____ By _____

**Reviewed by State** Date 5/7/12 By M. Gurley

**19. Inventory Date**

| Month/Year | Equipment Code | SCC Code |
|---|---|---|
| | | 30899999 |
| 171-174 | 175-177 | 178-185 |

**20.**

| Annual Operating Rate | Maximum Design Hourly Rate | Permit to Operate Month | Transaction Date (MM/DD/YR) |
|---|---|---|---|
| | | | 050712 |
| 186-192 | 193-199 | 200-201 | 202-207 |

| Staff Code | VOC Code | SIP Code | Regulation Code | Confidentiality |
|---|---|---|---|---|
| | | | | Y |
| 208-210 | 211 212 | 213 214 | 215-218 | 219 |

**Point Description**

Extruder

220-238

**Action** A: Add C: Change

239

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

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APR 23 2012

# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
## AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator: W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address: 2401 Singerly Road | | |
| City: Elkton | State: MD | Zip[Code: 21921 |
| Telephone Number (410) 398-6400 | | Fax Number (410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator: SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager: Sally Hawke | Telephone Number: (410) 398-6400 | Fax Number: (410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues: Keena J. Dautlick | | Title: Environmental Associate |
| Telephone Number (410) 398-6400 | | E-Mail Address: kdautlic@wlgore.com |

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Sally A. Hawke 4/17/2012

SIGNATURE DATE

SALLY HAWKE
PRINTED NAME

PLANT LEADER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.



Form Number: MDE/ARMA/PER.022
Revision Date April 29, 2003
TTY Users 1-800-735-2258

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

This application is being submitted to request a permit to construct for a new extruder, Mach 2 (CH20000806). This extruder will be similar to extruders CH 74837 and CH200006547. It will be vented through the general exhaust stack.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.

List the projected actual facility-wide emissions increase (in tons) below:

PM10_____ NOx_____ VOC__2.05__ SOx_____ CO_____

HAPs_____

☐ There will be a net decrease in emissions.

List the projected actual facility-wide emissions decrease (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____

HAPs_____

## SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **3-1**

2. MDE Registration No.: (if applicable)

Date of proposed change (month/year): 10/2012

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

CH20000806 Fluoropolymer Extruder (emission point CHS-001)

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: n/a

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 0 SOx 0 VOC 0.0 PM10 0 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 0 SOx 0 VOC 2.05 PM10 0 HAPs 0



Form Number: MDE/ARMA/PER.022
Revision Date April 29, 2003
TTY Users 1-800-735-2258

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**
COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 4. CONTROL EQUIPMENT

| 1. Associated Emissions Units No. : | 2. Emissions Point No.: |
|---|---|
| N/A | CHS-001 |

| 2. Type and Description of Control Equipment: |
|---|
| N/A |

| 4. Polutants Controlled: | 5. Control Efficiency: |
|---|---|
| | |

| 6. Capture Efficiency: |
|---|
| |

## Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW. POLICY LIMITS ARE NO LESS THAN THOSE LISTED, ALTHOUGH POLICIES MAY INCLUDE ADDITIONAL SUBLIMIT/LIMITS NOT LISTED BELOW.

**This is to Certify that**

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

**NAME AND ADDRESS OF INSURED**

Liberty Mutual.

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2013 | WA7-63D-004150-062<br>WC7-631-004150-072 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All States Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| COMMERCIAL GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate<br>Products / Completed Operations Aggregate<br>Each Occurrence<br>Personal & Advertising Injury Per Person / Organization<br>Other | Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence |
| OTHER | | | | |

ADDITIONAL COMMENTS

Re: Evidence of coverage for permit applications.

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Liberty Mutual Insurance Group

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
Baltimore MD 21230-1720

Lisa M. Davis
Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Bala Cynwyd
15 Kings Grant Drive
Bala Cynwyd PA 19004 — OFFICE
610-664-6380 — PHONE
3/21/2012 — DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies NM 772 07-10

EPA 24-015-00079

015-0079

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

MAY 31 2012

Mr. David Koo, Engineer
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

RECEIVED
JUN 05 2012
3AP20

Dear: Mr. Koo:

Enclosed, please find your Permits to Construct for the installation of two (2) extruders to be located in the Natural FPM Production Area at your facility at 2401 Singerly Road, Elkton MD. The permits contain both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the extruders that you have proposed to be modified.

The addition of the extruders qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct applications as written notification of the proposed change. Please include the addition of the two (2) extruders in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

William Paul for

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ss

Enclosure

cc: B. Frank Courtright with copy of permit
EPA Region III

**KEEP PERMIT AT SITE** **CONTROL NO. B- 03506**

*State of Maryland*

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-6-0318 DATE ISSUED May 31, 2012

PERMIT FEE $500.00 (PAID) EXPIRATION DATE In Accordance With COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**
W.L. Gore & Associates, Inc. – Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921
Attn: Mr. David Koo, Engineer

**SITE**
W.L. Gore & Associates, Inc. – Cherry Hill Plant
SAME
Cecil County
AI # 128

**SOURCE DESCRIPTION**
This permit authorizes the installation of one (1) extruder (CH0976) located in the Natural FPM Production Area.

RECEIVED
JUN 05 2012
3AP20

This source is subject to the conditions described on the attached pages.



William Paul for KT
Program Manager

Director, Air and Radiation Management Administration



(NOT TRANSFERABLE)

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received April 23, 2012 for the installation of one (1) extruder **[CH0976]** to be located in the Natural Area.

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received April 23, 2012 for the installation of one (1) extruder **[CH0976]** to be located in the Natural Area.

(c) Form 5B: Emission Data received April 23, 2012 for the installation of one (1) extruder **[CH0976]** to be located in the Natural Area.

(d) Supplemental Information [Emissions Calculations] received April 23, 2012 for the installation of one (1) extruder **[CH0976]** to be located in the Natural Area.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The addition of one (1) extruder qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.04B – Duration of Permit
"Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:
(1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
(2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
(3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.'

(b) COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."
*Note: Application was submitted with the permit to construct application package.*

(d) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(e) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(f) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.
"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.
(2) Good Operating Practices.
(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
(b) Good operating practices shall, at a minimum, include the following:
(i) Provisions for training of operators on practices, procedures, and maintenance requirements that is consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(g) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks
"A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.
Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.

(h) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;

(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.

(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(i) COMAR 26.11.19.30F - Demonstration of Compliance. "Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(c) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(d) COMAR 26.11.15.06A – Ambient Impact Requirement.
(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the

satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the extruder [CH00976] shall be constructed in accordance with specifications included in the incorporated applications.

(2) Except as otherwise provided in this part, the extruder [CH00976] shall be operated in accordance with specifications included in the applications and ay operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Monthly record of VOC material usage and days of operation of the extruder [CH00976].
(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪1-800-633-6101 ▪ www.mde.state.md.us

**Air and Radiation Management Administration ▪ Air Quality Permits Program**

RECEIVED APR 23 2012

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [X] Registration Update θ Initial Registration θ

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

County No: 015 (1-2)
Premises No: 0079 (3-6)
Registration Class: 6 (7)
Equipment No: 0318 (8-11)
Data Year: 12 (12-13)
Application Date

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton — MD — 21921
City — State — Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

David Koo, Engineer
Print Name and Title

4/17/2012
Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town — State — Zip — ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| C | | | Pre-1989 |
| 15 | 16-19 | 20-23 | 20-23 |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
**Existing Extruder (CH0976), very similar to CH74837.**

**5. Workmen's Compensation Coverage** WA7-63D-004150-062 (Binder/Policy Number) 3/31/13 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 1

**6B. Number of Stack/Emission Points Associated with this Equipment** 1

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087

## 9. Control Devices Associated with this Equipment

None [X] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other [ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | A B C D E F |

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS Electric (Specify Type) [ ] 66-1 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

OTHER FUEL (Specify Type) [ ] 66-2 ANNUAL AMOUNT CONSUMED (Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [x] | [ ] | [ ] | 20 | 7 | 353 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent |
|---|---|---|---|---|
| [X] | [ ] | [ ] | [ ] | [ ] |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 |

(Total Seasons= 100%)

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) N

85

**Ventilation for Associate comfort and to minimize the risk for fire.**

If not, then

| Height Above Ground (FT) | Inside Diameter at Top | Exit Temperature (°F) | Exit Velocity (FT/SEC) |
|---|---|---|---|
| 65 | 40 inches | 75 | 57 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)**
**Is any of this data to be considered confidential?** Y (Y or N)

**THIS IS WORST CASE ESTIMATE**

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Fluoro-polymers pellet containing: | 9002-84-0 | | | | |
| 2. Mineral Spirits | 64742-48-9 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoropolymer Products | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoro polymer scrap | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| | 6.7 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 2.9 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | 1 | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____

**Date Rec'd. State** 4/23/12

**Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____

**Reviewed by State** Date 5/2/12 By M. Gurley

**19. Inventory Date** Month/Year (171-174) _____ Equipment Code (175-177) _____ SCC Code (178-185) 30899999

**20.** Annual Operating Rate (186-192) _____ Maximum Design Hourly Rate (193-199) _____ Permit to Operate Month (200-201) _____ Transaction Date (MM/DD/YR) (202-207) 050712

Staff Code (208-210) _____ VOC Code (211 212) _____ SIP Code (213 214) _____ Regulation Code (215-218) _____ Confidentiality (219) Y

Point Description (220-238) Exhauster

Action (239) _____ A: Add C: Change

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

RECEIVED
APR 23 2012
By

# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
## AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator: W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address: 2401 Singerly Road | | |
| City: Elkton | State: MD | Zip[Code: 21921 |
| Telephone Number (410) 398-6400 | | Fax Number (410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator: SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager: Sally Hawke | Telephone Number: (410) 398-6400 | Fax Number: (410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues: Keena J. Dautlick | | Title: Environmental Associate |
| Telephone Number (410) 398-6400 | | E-Mail Address: kdautlic@wlgore.com |

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Sally A. Hawke — 4/17/2012

SIGNATURE — DATE

SALLY HAWKE
PRINTED NAME

PLANT LEADER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.



Form Number: MDE/ARMA/PER.022
Revision Date April 29, 2003
TTY Users 1-800-735-2258

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

This application is being submitted to request a permit to construct for an existing extruder, CH0976. This extruder is similar to extruders CH 74837 and CH200006547. It will be vented through the general exhaust stack.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.
List the projected actual facility-wide emissions increase (in tons) below:

PM10____ NOx____ VOC 1.69 SOx____ CO____

HAPs____

☐ There will be a net decrease in emissions.
List the projected actual facility-wide emissions decrease (in tons) below:

PM10____ NOx____ VOC____ SOx____ CO____

HAPs____

## SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **3-1**

2. MDE Registration No.: (if applicable)

Date of proposed change (month/year): Existing

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

CH0976 Fluoropolymer Extruder vented through the general exhaust stack (emission point #CHS-001)

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: n/a

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 0 SOx 0 VOC 0.0 PM10 0 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 0 SOx 0 VOC 1.69 PM10 0 HAPs 0



Form Number: MDE/ARMA/PER.022
Revision Date April 29, 2003
TTY Users 1-800-735-2258

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**

COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

MARYLAND DEPARTMENT OF THE ENVIRONMENT

## SECTION 4. CONTROL EQUIPMENT

| | |
|---|---|
| 1. Associated Emissions Units No. :<br>N/A | 2. Emissions Point No.:<br>CHS-001 |
| 2. Type and Description of Control Equipment:<br><br>N/A | |
| 4. Polutants Controlled: | 5. Control Efficiency: |
| 6. Capture Efficiency: | |

## Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW. POLICY LIMITS ARE NO LESS THAN THOSE LISTED, ALTHOUGH POLICIES MAY INCLUDE ADDITIONAL SUBLIMIT/LIMITS NOT LISTED BELOW.

**This is to Certify that**

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

NAME AND ADDRESS OF INSURED

Liberty Mutual.

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2013 | WA7-63D-004150-062<br>WC7-631-004150-072 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All States Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| COMMERCIAL GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate<br>Products / Completed Operations Aggregate<br>Each Occurrence<br>Personal & Advertising Injury<br>Other | Per Person / Organization<br>Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence |
| OTHER | | | | |

ADDITIONAL COMMENTS

Re: Evidence of coverage for permit applications.

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Liberty Mutual Insurance Group

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
Baltimore MD 21230-1720

Lisa M. Davis
Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Bala Cynwyd
15 Kings Grant Drive
Bala Cynwyd PA 19004 — OFFICE
610-684-6380 — PHONE
3/21/2012 — DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies NM 772 07-10

24-015-00079

015-0079

Tally

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

MDE

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

JUL 26 2012

Mr. David Zetune, Engineer
W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton MD 21922-1220

RECEIVED
AUG 01 2012
3AP20

Dear: Mr. Zetune:

Enclosed please find your permit to construct for the modification of the heat treat rolldown to include a mineral spirit dip bath located in the FPM Processing Area at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the extruders that you have proposed to be modified.

The modification of the heat treat rolldown to include a mineral spirits dip bath qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the modification of the heat treat rolldown in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ss

Enclosure

cc: Jeanette Wolfe
Marcellina Gurley
B. Frank Courtright with copy of permit
EPA Region III

**KEEP PERMIT AT SITE** **CONTROL NO. B- 03564**

*State of Maryland*

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

# DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit [ ] Operating Permit

PERMIT NO. 015-0079-6-0320

DATE ISSUED July 26, 2012

PERMIT FEE $500.00 (PAID)

EXPIRATION DATE In Accordance With COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**

W.L. Gore & Associates, Inc.
2401 Singerly Road
Elkton, MD 21921
Attn: Mr. David Zetune, Engineer

**SITE**

W.L. Gore & Associates, Inc. - Cherry Hill Plant
2401 Singerly Road
Elkton, MD 21921
Cecil County
AI # 128

**SOURCE DESCRIPTION**

Modification to heat treat rolldown (Blackhawke II) to include a heated mineral spirits dip bath.

This source is subject to the conditions described on the attached pages.



Program Manager

Director, Air and Radiation Management Administration

MDE/ARMA/PER.009 (Rev. 10-08-03)

(NOT TRANSFERABLE)

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting Requirements

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications are incorporated into this permit by reference:

(a) Application for Process/Manufacturing Equipment (AMA-5) received June 5, 2012 for the modification of the heat treat rolldown (Blackhawke) to include a heated mineral spirit dip bath **[CH79796]** located in the FPM Processing Area.

(b) Form 5A: Summary of Demonstrations for Meeting the Ambient Impact Requirement (26.11.15.05) and the T-BACT Requirement (26.11.15.06) received June 5, 2012 for the modification of the heat treat rolldown (Blackhawke) to include a heated mineral spirit dip bath **[CH79796]** located in the FPM Processing Area..

(c) Form 5B: Emission Data received June 5, 2012 for the modification of the heat treat rolldown (Blackhawke) to include a heated mineral spirit dip bath **[CH79796]** located in the FPM Processing Area.

(d) Supplemental Information [Emissions Calculations] received June 5, 2012 for the modification of the heat treat rolldown (Blackhawke) to include a heated mineral spirit dip bath **[CH79796]** located in the FPM Processing Area.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) The modification of the heat treat rolldown (Blackhawke) to include a heated mineral spirit dip bath qualifies as an "Off Permit" change to the facility's Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change and should be included in the application for the next renewal of the Part 70 permit.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.04B – Duration of Permit
"Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:
(1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
(2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
(3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.'

(b) COMAR 26.11.02.09A – Sources Subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required."

(c) COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements. "The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter."
*Note: Application was submitted with the permit to construct application package.*

(d) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(e) COMAR 26.11.06.03B(1) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(f) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.
"(1) Applicability. The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter.
(2) Good Operating Practices.
(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.
(b) Good operating practices shall, at a minimum, include the following:
(i) Provisions for training of operators on practices, procedures, and maintenance requirements that is consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

(g) COMAR 26.11.19.16 C & D. – Control of VOC Equipment Leaks
"A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.
Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

(h) COMAR 26.11.19.30E - General Requirements for FPM Process Installations.
"(1) A person who owns or operates an FPM process installation that has actual uncontrolled VOC emissions of 50 pounds or more per day shall vent the emissions into a thermal oxidizer system or other control method approved by the Department to destroy or reduce VOC emissions by 85 percent or more, overall.
(2) If a thermal oxidizer is installed, the oxidizer combustion chamber shall be:
(a) Operated at a minimum combustion chamber temperature of 1400°F or other temperature approved by the Department that is demonstrated to achieve compliance with this regulation;

(b) Equipped with a continuous temperature monitor to record the oxidizer temperature; and
(c) Equipped with an alarm system that alerts the operator when the oxidizer combustion chamber temperature is less than the approved temperature; and
(d) Equipped with an interlock system that prevents operation of the FPM installation unless the approved control system is operating.
(3) If a source uses an alternative control method approved by the Department, the alternative control method shall be monitored as required by the Department.
(4) Equipment that is installed for the purpose of treating emissions or monitoring shall be operated, maintained, and as applicable, calibrated in accordance with the equipment vendor's specifications.
(5) A person who owns or operates an FPM compounding and tape or shape-forming installation shall minimize fugitive emissions of VOC by:
(a) Immediately enclosing all wet FPM during storage; and
(b) Covering dipping troughs when not in operation.
(6) A person who owns or operates an FPM coating installation that has actual uncontrolled VOC emissions of 20 pounds or more per day may not use a coating that has a VOC content exceeding 2.9 pounds per gallon unless the installation is equipped with a control device that meets the requirements in §E(2), (3), and (4) of this regulation."

(i) COMAR 26.11.19.30F - Demonstration of Compliance.
"Compliance with this regulation shall be demonstrated using the applicable VOC test methods specified in COMAR 26.11.01.04C or other test method approved by the Department."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(c) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(d) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

(e) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(f) COMAR 26.11.15.06A – Ambient Impact Requirement.
(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or

operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the heat treat rolldown (Blackhawke) with heated mineral spirit dip bath [CH79796] shall be modified in accordance with specifications included in the incorporated applications.

(2) Except as otherwise provided in this part, the heat treat rolldown (Blackhawke) with heated mineral spirit dip bath [CH79796] shall be operated in accordance with specifications included in the applications and any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Monthly record of VOC material usage and days of operation of the heat treat rolldown (Blackhawke) with heated mineral spirit dip bath [CH79796].
(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.
(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07C, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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**Air and Radiation Management Administration ▪ Air Quality Permits Program**

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## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [x] Registration Update θ Initial Registration θ

**1A. Owner of Equipment/Company Name**

W.L.Gore & Associates, Inc. – CHERRY HILL PLANT

**Mailing Address**

2401 Singerly Road
Street Address

Elkton | MD | 21921
City | State | Zip

**Telephone Number**

( 410 ) 398-6400

**Signature**

David J. Zetune

David Zetune, Engineer
Print Name and Title

05/30/2012
Date

**DO NOT WRITE IN THIS BLOCK**
**2. REGISTRATION NUMBER**

County No. (1-2): 015
Premises No. (3-6): 0079
Registration Class (7): 6
Equipment No. (8-11): 0320
Data Year (12-13): 12
Application Date

**1B. Equipment Location and Telephone Number (if different from above)**

same as above
Street Number and Street Name

City/Town | State | Zip | ( ) Telephone Number

Premises Name (if different from above)

**3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)**

| Status (15) | New Construction Begun (MM/YY) (16-19) | New Construction Completed (MM/YY) (20-23) | Existing Initial Operation (MM/YY) (20-23) |
|---|---|---|---|
| B | | 08/12 | |

**4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)**
Heat treat exhaust with heated dip bath

**5. Workmen's Compensation Coverage** WA7-63D-004150-062 (Binder/Policy Number) 3/31/13 (Expiration Date)

Company Liberty Mutual

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time** 1

**6B. Number of Stack/Emission Points Associated with this Equipment** 1

## 7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name W.L.Gore & Associates, Inc.-Cherry Hill Title

Company

Mailing Address/Street

City/Town State Telephone ( )

## 8. Major Activity, Product or Service of Company at this Location

**Custom Compounding of purchased plastic resin, PTFE Forming/Stretching SIC3087**

## 9. Control Devices Associated with this Equipment

None [X] 24-0

| Simple/Multiple Cyclone | Spray/Adsorb Tower | Venturi Scrubber | Carbon Adsorber | Electrostatic Precipitator | Baghouse | Thermal/Catalytic Afterburner | Dry Scrubber |
|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |
| 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

Other

[ ] Describe

24-9

## 10. Annual Fuel Consumption for this Equipment

| OIL-1000 GALLONS | SULFUR % | GRADE | NATURAL GAS-1000 $FT^3$ | LP GAS-100 GALLONS | GRADE |
|---|---|---|---|---|---|
| | | | | | |
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

A B C D E F

| COAL- TONS | SULFUR % | ASH% | WOOD-TONS | MOISTURE % |
|---|---|---|---|---|
| | | | | |
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

OTHER FUELS Electric [ ] ANNUAL AMOUNT CONSUMED

(Specify Type) 66-1 (Specify Units of Measure)

OTHER FUEL [ ] ANNUAL AMOUNT CONSUMED

(Specify Type) 66-2 (Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

## 11. Operating Schedule (for this Equipment)

| Continuous Operation | Batch Process | Hours per Batch | Batch per Week | Hours per Day | Days Per Week | Days per Year |
|---|---|---|---|---|---|---|
| [ ] | [x] | | | 16 | 5 | 250 |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

Seasonal Variation in Operation:

| No Variation | Winter Percent | Spring Percent | Summer Percent | Fall Percent |
|---|---|---|---|---|
| [X] | | | | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 |

(Total Seasons= 100%)

**12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only?** (Y/N) N

85

**Ventilation for Associate comfort and to minimize the risk for fire.**

If not, then →

| Height Above Ground (FT) | Inside Diameter at Top | Exit Temperature (°F) | Exit Velocity (FT/SEC) |
|---|---|---|---|
| 65 | 40 inches | 75 | 57 |
| 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**
**Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.**

**13. Input Materials (for this equipment only)**
**Is any of this data to be considered confidential?** Y (Y or N)

**THIS IS WORST CASE ESTIMATE**

| NAME | CAS NO. (IF APPLICABLE) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. Fluoro-polymer material | 9002-84-0 | | | | |
| 2. Mineral Spirits | 64742-48-9 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

**14. Output Materials (for this equipment)**
**Process/Product Stream**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoropolymer Products | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| TOTAL | | | | | |

**15. Waste Streams- Solid and Liquid**

| NAME | CAS NO. (IF APPLICABLE) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. "Wet" Fluoro polymer scrap | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

## 16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 99-104 | 105-110 | 111-116 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 10.67 | 0 |
| 177-122 | 123-128 | 129-134 |

## 17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

| Particulate Matter | Oxides of Sulfur | Oxides of Nitrogen |
|---|---|---|
| 0 | 0 | 0 |
| 135-139 | 140-144 | 145-149 |

| Carbon Monoxide | Volatile Organic Compounds | PM-10 |
|---|---|---|
| 0 | 0.08 | 0 |
| 150-154 | 155-159 | 160-164 |

**Method Used to Determine Emissions** (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | 1 | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18. Date Rec'd. Local** _____ **Date Rec'd. State** 6/5/12 **Return to Local Jurisdiction** Date_____ By_____

**Reviewed by Local Jurisdiction** Date_____ By_____ **Reviewed by State** Date 6/21/12 By M. Gusley

**19. Inventory Date** **Month/Year** (171-174) **Equipment Code** (175-177) **SCC Code** 30899999 (178-185) tons of material process

**20. Annual Operating Rate** (186-192) **Maximum Design Hourly Rate** (193-199) **Permit to Operate Month** (200-201) **Transaction Date (MM/DD/YR)** 062812 (202-207)

**Staff Code** (208-210) **VOC Code** (211 212) **SIP Code** (213 214) **Regulation Code** (215-218) **Confidentiality** ✓ (219)

**Point Description** heat treated rollers w/ heated mineral spirit dip bath (220-238)

**Action** (239) A: Add C: Change

Form Number: 5
Rev. 9/27/2002
TTY Users 1-800-735-2258


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**Air and Radiation Management Administration ● Air Quality Permits Program**

# Summary of Demonstrations for Meeting the ambient impact Requirement (26.11.15.05) and the T-Bact Requirement (26.11.15.06)

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc. – Cherry Hill Plant

**1.** Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation **must** be attached.

| Emission Reduction Option | % Emission Reduction | COSTS Capital | COSTS Annual Operating |
|---|---|---|---|
| 1. Immediately cover wet tapes in storage (COMAR 26.11.19.30E(5a)) | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

**2.** Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation **must** be attached.

Ventilation for this equipment is for safety, to reduce risk of fire. Low concentrations do not support the tie in to the Oxidizer Control System. The only other way to control emissions from this unit is to implement best practices by covering wet tapes that are in storage.

3. List screening levels and highest estimated off-site concentrations (ug/m$^3$) resulting from **premises-wide allowable emissions** (1) of each Toxic Air Pollutant that is covered by the regulations and discharged fromthe installation or source applying for the permit. See the General Instructions for more detail. Supporting documentation **must** be attached.

| | Toxic Air Pollutant | CAS Number | SCREENING LEVEL(S) 1-HR | 8-HR | Annual | OFF-SITE CONCENTRATIONS 1-HR | 8-HR | Annual |
|---|---|---|---|---|---|---|---|---|
| 1 | PTFE | 9002-84-0 | - | - | - | - | - | - |
| 2 | Mineral Spirits | 64742-48-9 | - | 12,000 | - | - | 535 | - |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |

☐ If unable to use a Screening Analysis, check the box and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of persons" (COMAR 26.11.15.01B(12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in an applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance, consent agreement, or court order" (COMAR 26.11.15.01B(2)).

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# Emissions Data

**Fill out one Form 5B for each stack or other emission point subject to the regulations (see the General Instructions for more detail).**

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L.Gore & Associates, Inc.- Cherry Hill

1. Number Identifying this Emission Point on Required Plot Plan CHS-001
(If applicable, list company's internal I.D. CH79796)

2. Brief description of Emission Point, Associated Equipment and Control Devices

Heat treat exhaust with dip bath (CH79796) .

3. Emission Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes/Hour | Hours/Day | Days/Week | Weeks/Year |
|---|---|---|---|---|---|
| | X | | 16 | 5 | 50 |

Seasonal Variation: None X Winter % ____ Spring% ____ Summer% ____ Fall% ____

4. Stack Information

Height above ground (ft): 65
Inside Diameter at top of round stack (ft): 3.33
Exit Temperature (°F): 75
Height above structures (ft): 0
Dimensions at top of rectangular stack (ft): ____
Exit Velocity (ft/min): 3403
Distance to Nearest Property Line (ft): 425
Gas Volume (acfm): ____

Dimensions of Building Stack is on (ft): Height 24 Length 500 Width 425

5. Control Devices Associated with this Stack or Emission Point

| Control Device | Number | Control Device | Number |
|---|---|---|---|
| 0. None | X | 7. Elec. Precipitator | |
| 1. Simple Cyclone | | 8. Baghouse | |
| 2. Multiple Cyclone | | 9. Thermal Afterburner | |
| 3. Spray Tower | | 10. Catalytic Afterburner | |
| 4. Absorption Tower | | 11. Other (specify) | |
| 5. Venturi Scrubber | | | |
| 6. Carbon Adsorber | | | |

6. Criteria Pollutant Emissions (attach supporting documentation)

| Criteria Pollutants | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected (lb/hr) | Operations (1) (ton/year) |
|---|---|---|---|
| Particulate Matter | 0 | 0 | 0 |
| PM10 | 0 | 0 | 0 |
| Oxides of Sulfur | 0 | 0 | 0 |
| Oxides of Nitrogen | 0 | 0 | 0 |
| Carbon Monoxide | 0 | 0 | 0 |
| VOC (total) | 0.672 | 0.672 | 1.34 |
| Lead | 0 | 0 | 0 |

7. Toxic Air Pollutant Emissions (attach supporting documentation)

| | Toxic Air Pollutant (list all) | CAS Number | ESTIMATED EMISSIONS Design Capacity (lb/hr) | Projected Operations (1) (lb/hour) | Projected Operations (1) (ton/year) | Used for Form 5A, Part 3 (2) (lb/hour) | Used for Form 5A, Part 3 (2) (ton/year) |
|---|---|---|---|---|---|---|---|
| 1 | Mineral Spirits | 64742-48-9 | 0.672 | 0.672 | 1.34 | 0.672 | 1.34 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.
(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxic regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

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# PART 70 PERMT APPLICATION FOR MINOR MODIFICATION
AIR AND RADIATION MANAGEMENT ADMINISTRATION

This application form shall be used by facilities that request a minor modification to its Part 70 Operating Permit. A minor permit modification is a Part 70 revision that meets the criteria of COMAR 26.11.03.16B.

**Owner and Operator:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>W.L. Gore & Associates, Inc. – CHERRY HILL | | |
| Street Address:<br>2401 Singerly Road | | |
| City:<br>Elkton | State:<br>MD | Zip[Code:<br>21921 |
| Telephone Number<br>(410) 398-6400 | | Fax Number<br>(410) 506-2440 |

**Facility Information:**

| | | |
|---|---|---|
| Name of Owner or Operator:<br>SAME | | |
| Street Address: | | |
| City: | State: | Zip Code: |
| Plant Manager:<br>Sally Hawke | Telephone Number:<br>(410) 398-6400 | Fax Number:<br>(410) 506-2440 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: | | |
| Contact for Permit Issues:<br>Keena J. Dautlick | | Title:<br>Environmental Associate |
| Telephone Number<br>(410) 398-6400 | | E-Mail Address:<br>kdautlic@wlgore.com |

## SECTION 1. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Sally A. Hawke — May 31, 2012

SIGNATURE — DATE

SALLY HAWKE
PRINTED NAME

PLANT LEADER
TITLE

**Reason for the Request for a Minor Modification:**

(check appropriate box(s) below)

- [X] Install new emissions units of like kind to units in the current Part 70 permit and will use the same testing, monitoring, record keeping and reporting requirements to demonstrate compliance with applicable standards.
- [ ] Modify an emissions unit. The modification will not result in new standards and limitation, and the testing, record keeping, monitoring and reporting requirements to demonstrate compliance sill remain unchanged.
- [ ] Install or modify an emissions unit that is not a Title I modification.
- [ ] Revise Testing, Monitoring, Record Keeping or Reporting in a manner that is not significant.

## SECTION 2. MINOR MODIFICATION SUMMARY

1. Effect on the Facility

Briefly describe the minor modification and its effect on the facility:

This application is being submitted to request a permit to construct for a modification to an existing heat treat rolldown machine, Blackhawke (previously identified as Hawkeye II). This modification includes adding a heated, mineral spirits dip bath. Emissions will be vented to the atmosphere through the general exhaust stack.

2. Projected Facility-Wide Emissions After the Minor modification

☐ There will be no change in emissions.

☒ There will be a net increase in emissions.
List the projected actual facility-wide emissions increase (in tons) below:

PM10_____ NOx_____ VOC__1.33__ SOx_____ CO_____

HAPs_____

☐ There will be a net decrease in emissions.
List the projected actual facility-wide emissions decrease (in tons) below:

PM10_____ NOx_____ VOC_____ SOx_____ CO_____

HAPs_____

**SECTION 3A. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: **3-3**

2. MDE Registration No.: (if applicable)

Date of proposed change (month/year): 08/2012

3.Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

CH79796 Blackhawke, heat treat rolldown (emission point CHS-001)

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference: n/a

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

| Type(s) of Fuel | %Sulfur | Annual Usage (specify units) |
|---|---|---|
| 1. electric | | |
| 2. | | |
| 3. | | |

6. Emissions in Tons:

A. Actual Emissions Before Modification:

NOx 0 SOx 0 VOC 0.0 PM10 0 HAPs 0

B. Projected Actual Emissions After Modification:

NOx 0 SOx 0 VOC 1.33 PM10 0 HAPs 0

## SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

**Emissions Unit No.:** Facility-Wide **General Reference:** COMAR 26.11.19.02I

Briefly describe the Emission Standard/Limit or Operational Limitation:

A. **Control of Volatile Organic Compounds**
COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(1) Applicability. "The requirements in this section apply to a person who owns or operates an installation that is subject to any requirement in this chapter."

(2) Good Operating Practices.

(a) "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical;-and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;

(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and

(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.

(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.

(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia."

**Compliance Demonstration:**

| Methods used to demonstrate compliance: |
|---|
| Monitoring:<br>A. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**<br>Testing:<br>A. None.<br>Record Keeping:<br>A. The Permittee shall maintain:<br>(1) Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**<br>(2) Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**<br>Reporting:<br>A. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request |

**Frequency of submittal of the compliance demonstration:**

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ■ Semi-Annual Monitoring Report: Jan 30th and July 30th
- ■ Annual Compliance Certification: April 1st

## SECTION 4. CONTROL EQUIPMENT

| | |
|---|---|
| 1. Associated Emissions Units No. :<br>N/A | 2. Emissions Point No.:<br>CHS-001 |
| 2. Type and Description of Control Equipment:<br><br>N/A | |
| 4. Polutants Controlled: | 5. Control Efficiency: |
| 6. Capture Efficiency: | |

## Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW. POLICY LIMITS ARE NO LESS THAN THOSE LISTED, ALTHOUGH POLICIES MAY INCLUDE ADDITIONAL SUBLIMIT/LIMITS NOT LISTED BELOW.

**This is to Certify that**

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

NAME AND ADDRESS OF INSURED

Liberty Mutual.

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2013 | WA7-63D-004150-062<br>WC7-631-004150-072 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All States Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| COMMERCIAL GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate<br>Products / Completed Operations Aggregate<br>Each Occurrence<br>Personal & Advertising Injury<br>Other | Per Person / Organization<br>Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence |
| OTHER | | | | |

ADDITIONAL COMMENTS

Re: Evidence of coverage for permit applications.

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

Liberty Mutual Insurance Group

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
Baltimore MD 21230-1720

Lisa M. Davis
Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Bala Cynwyd
15 Kings Grant Drive
Bala Cynwyd PA 19004 — OFFICE
610-664-6380 — PHONE
3/21/2012 — DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies NM 772 07-10

## Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW. POLICY LIMITS ARE NO LESS THAN THOSE LISTED, ALTHOUGH POLICIES MAY INCLUDE ADDITIONAL SUBLIMIT/LIMITS NOT LISTED BELOW.

**This is to Certify that**

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

NAME AND ADDRESS OF INSURED

Liberty Mutual.

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2013 | WA7-63D-004150-062<br>WC7-631-004150-072 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All States Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| COMMERCIAL GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate<br>Products / Completed Operations Aggregate<br>Each Occurrence<br>Personal & Advertising Injury Per Person / Organization<br>Other | Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence | |
| OTHER | | | | |

ADDITIONAL COMMENTS

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

Liberty Mutual Insurance Group

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
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Lisa M. Davis — Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Bala Cynwyd
15 Kings Grant Drive
Bala Cynwyd PA 19004 — OFFICE
610-664-6380 — PHONE
3/21/2012 — DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies NM 772 07-10

24-015-00079 47
MD0000002401500079

TR 14785

**KEEP PERMIT AT SITE**

**CONTROL NO. B- 03869**

*State of Maryland*

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

**DEPARTMENT OF THE ENVIRONMENT**

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[X] Construction Permit

[ ] Operating Permit

PERMIT NO. 015-0151-6-0321

DATE ISSUED April 25, 2013

PERMIT FEE $1000.00 (PAID)

EXPIRATION DATE In Accordance With COMAR 26.11.02.04B

**LEGAL OWNER & ADDRESS**

W.L. Gore & Associates, Inc
105 Vieve's Way
Elkton, Maryland 21921
Attention: Tracey A. Regester

**SITE**

Elk Mills V Plant
105 Vieve's Way
Elkton, Maryland 21921
Cecil County
Premises # 015-0151
AI # 11881

**SOURCE DESCRIPTION**

This permit authorizes the installation of two (2) ink-jet printers for a total of three (3) printers to apply solvent based inks onto substrates.

This permit supersedes permit to construct number 015-0151-6-0321 issued October 16, 2012.

This source is subject to the conditions described on the attached pages.



Karen Allen
Program Manager

Angela Bramo
Director, Air and Radiation Management Administration

MDE/ARMA/PER.009 (Rev. 10-08-03)

**(NOT TRANSFERABLE)**

**INDEX**

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction & Operating Conditions
Part D – Record Keeping and Reporting

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## Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:

(a) Application for Processing or Manufacturing Equipment (Form 5) received August 27, 2012 for an ink jet printer used to apply solvent based inks onto substrates.

(b) Application for Processing or Manufacturing Equipment (Form 5) received March 18, 2013 for two (2) ink jet printers used to apply solvent based inks onto substrates.

(c) Summary of Demonstrations for Meeting the Ambient Impact Requirement and T-BACT Requirements (Form 5A) received August 27, 2012 for an ink jet printer.

(d) Summary of Demonstrations for Meeting the Ambient Impact Requirement and T-BACT Requirements (Form 5A) received March 18, 2013 for two (2) ink jet printers.

(e) Emissions Data (Form 5B) received August 27, 2012 for an ink jet printer.

(f) Emissions Data (Form 5B) received March 18, 2013 for two (2) ink jet printers.

(g) Supplemental Information [MSDS, supporting data and calculation] received August 27, 2012 for an ink jet printer.

(h) Supplemental Information [MSDS, supporting data and calculation] received March 18, 2013 for two (2) ink jet printers.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Cecil County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) This permit supersedes permit to construct number 015-0151-6-0321 issued October 16, 2012.

## Part B – Applicable Regulations

(1) This source is subject to all applicable federally enforceable state air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.04 - Duration of Permits
"B. Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:
(1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
(2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
(3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval."

(b) COMAR 26.11.02.09A – Sources Subject to Permits to Construct and Approval. "A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter–permit to construct required.

(c) COMAR 26.11.06.02C(1) – Visible Emission Standards. "In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exception. The visible emission standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(d) COMAR 26.11.06.03B(1)(a) – Particulate Matter. "Installations Constructed On or After January 17, 1972. A person may not cause or permit particulate matter to be discharged from any installation constructed on or after January 17, 1972 in excess of 0.05 gr/SCFD (115 kg/dscm)."

(e) COMAR 26.11.19.02I - Good Operating Practices, Equipment Cleanup, and VOC Storage.

(2)(a) A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.

(b) Good operating practices shall, at a minimum, include the following:

(i) Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;

(ii) Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;

(iii) As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;

(iv) For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and

(v) As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC.

(c) A person subject to this regulation shall:

(i) Establish good operating practices in writing;

(ii) Make the written operating practices available to the Department upon request; and

(iii) Display the good operating practices so that they are clearly visible to the operator or include them in operator training.

(3) Equipment Cleanup.

(a) A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.

(b) Reasonable precautions for equipment cleanup shall, at a minimum, include the following:

(i) Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;
(ii) Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;
(iii) Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and
(iv) Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.

(4) VOC Storage and Transfer.
(a) A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more, to minimize VOC emissions.
(b) A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia.

(f) COMAR 26.11.19.16 – Control of VOC Equipment Leaks.
C. General Requirements. "A person subject to this regulation shall comply with all of the following requirements:
(1) Visually inspect all components on the premises for leaks at least once each calendar month.
(2) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
(3) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.

(4) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

(5) Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipefittings.

(6) Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.

D. Exceptions. Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown."

(g) COMAR 26.11.19.18 - Control of Volatile Organic Compound Emissions from Screen Printing and Digital Imaging.

"A. In this regulation, the following terms have the meanings indicated:

(5-1) "Digital imaging" means a printer that uses a computer-driven machine to transfer an electronically stored image onto the substrate through the use of inks, toners, or other similar color graphic materials. Application methods include ink jet, electrostatic, and spray jet technologies.

B. Applicability.

(1) This regulation applies to a person, owner, or operator who: (e) Performs digital imaging at a premises that causes VOC emissions of 20 pounds or more per day from all digital imaging at the premises.

F. General Requirements for Digital Imaging. A person who owns or operates digital imaging that is subject to this regulation may not cause the discharge of VOC emissions into the atmosphere in excess of 100 pounds on any day from all digital printing at the premises.

G. Record Keeping. A person subject to this regulation shall maintain the following records for not less than 3 years, and make the records available to the Department upon request: (3) The VOC content of each ink, coating, cleanup material, or any other material containing VOC that is used at the premises."

(2) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.19C - Information Required to be Maintained by a Source.

(1) "Beginning January 1, 1994, the owner or operator of a source for which a permit to operate is required shall maintain records necessary to support the emission certification, including the following information:

(a) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(b) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(c) Amounts, types, and analyses of all fuels used;

(d) Emission data from continuous emission monitors that are required by this subtitle or EPA regulations, including monitor calibration and malfunction information;

(e) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment, including significant maintenance performed, malfunctions and downtime, and episodes of reduced efficiency of this equipment;

(f) Limitations on source operation or any work practice standards that significantly affect emissions; and

(g) Other relevant information as required by the Department.

(2) The logs and other records of information required by §C(1) of this regulation shall be retained for a period of 5 years and made available to the Department upon request.

(3) If the owner or operator of a source for which a permit to operate is required fails to maintain or provide the data required by this section, which the Department requests in order to verify the emissions during the previous calendar year, the annual emission-based fee for that source shall be based on the estimated allowable emissions, as defined in COMAR 26.11.01.01B(4), of that source, as determined by the Department."

(b) COMAR 26.11.02.19D – Emission Certification.

(1) Beginning January 1, 1994, the responsible official designated by the owner or operator of a source for which a permit to operate is required shall certify, as provided at Regulation .02F of this chapter, the actual emissions of regulated air pollutants from all installations at the plant or facility.

(2) Certification shall be on a form obtained from the Department and shall be submitted to the Department not later than April 1 of the year following the year for which certification is required.

(3) An emission certification submitted pursuant to this section and which contains all information required by COMAR 26.11.01.05-1, for NOx and VOC, satisfies the requirements of COMAR 26.11.01.05-1.

(c) COMAR 26.11.06.08 – Nuisance. "An installation or premises may not be operated or maintained in such a manner that nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(d) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

(e) COMAR 26.11.15.05A – Control Technology Requirement. "A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated any new installation or new source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(f) COMAR 26.11.15.06A – Ambient Impact Requirement.

(1) "Except as provided in Sec. A(2), of this regulation, a person may not construct, modify, or operate or cause to be constructed, modified, or operated any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health; and

(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07, and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

## Part C – Construction & Operating Conditions

(1) Except as otherwise provided in this part, the three (3) inkjet printers shall be constructed in accordance with specifications included in the incorporated applications.

(2) Except as otherwise provided in this part, the three (3) inkjet printers shall be operated in accordance with specifications included in the application and any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.

## Part D – Record Keeping and Reporting

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) The VOC content of each ink, coating, cleanup material or any other material containing VOC that is used at the premises.

(b) All written descriptions of "good operating practices" designed to minimize emissions of VOC.

(c) VOC leak detection and repair logs that include identification of the persons who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected.

(2) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.02.19D.

(a) Certifications of emissions shall be submitted on forms obtained from the Department.

(b) A certification of emissions shall include mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.

(c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(3) The Permittee shall submit to the Department by April 1 of each year a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. Such analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

(4) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd, Baltimore, Maryland 21230
(410) 537-3230 1-800-633-6101 www.mde.state.md.us

MAR 18 2013

## Air and Radiation Management Administration Air Quality Permits Program

## APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct [X] Registration Update [X] Initial Registration [ ]

**1A OWNER OF EQUIPMENT/COMPANY NAME**

W.L. Gore & Associates, Inc. - Elk Mills V Site

Mailing Address
105 Vieve's Way
Street Address

Elkton | MD | 21921
CITY | STATE | ZIP

(410) 392-3600
TELEPHONE NUMBER

Tracey A. Regester
SIGNATURE

Tracey A. Regester
PRINT NAME AND TITLE

3/4/13
DATE

DO NOT WRITE IN THIS BLOCK
2. REGISTRATION NUMBER

County No. 015 (1-2)
Premises No. 0151 (3-6)
Registration Class 6 (7)
Equipment No. 0321 (8-11)
DATA YEAR 13 (12-13)
APPLICATION DATE

**1B EQUIPMENT LOCATION AND TELEPHONE NUMBER ( IF DIFFERENT FROM ABOVE)**

Stree Number and Street Name

CITY, TOWN | STATE | ZIP | TELEPHONE

PREMISES NAME (IF DIFFERENT FROM ABOVE)

**3 STATUS (A=New, B=Modification to Existing Equipment, C=Existing Equipment)**

| STATUS | New Construction Begun (MM/YY) | New Construction Completed (MM/YY) | Existing Initial Operation (MM/YY) |
|---|---|---|---|
| B | 0713 | 0713 | 0413 |
| 15 | 16-19 | 20-23 | 20-23 |

**4 DESCRIBE THIS EQUIPMENT:** MAKE, MODEL, FEATURES, MANUFACTURER (INCLUDE MAXIMUM HOURLY INPUT RATE, ETC)

**Printing process with three (3) ink jet printers used to apply solvent based inks onto substrates**

**5 WORKMEN'S COMPENSATION COVERAGE**

WA7-63D-004150-062
BINDER/POLICY NUMBER:

3/31/2013
EXPIRATION DATE

COMPANY: Liberty Mutual

NOTE: before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

**6 A. NUMBER OF PIECES OF IDENTICAL EQUIPMENT UNITS TO BE REGISTERED/PERMITTED AT THIS TIME** 2 (total of 3)

**6 B. NUMBER OF STACKS/EMISSION POINTS ASSOCIATED WITH THIS EQUIPMENT** 2

**7 PERSON INSTALLING THIS EQUIPMENT (IF DIFFERENT FROM (1) ABOVE)**

NAME _____ TITLE _____

COMPANY _____

MAILING ADDRESS/STREET _____

CITY, TOWN _____ STATE _____ TELEPHONE _____

**8 MAJOR ACTIVITY, PRODUCT OR SERVICE OF COMPANY AT THIS LOCATION**

Textile and fabric finishing

**9 CONTROL DEVICES ASSOCIATED WITH THIS EQUIPMENT**

| NONE | SIMPLE/MULTIPLE CYCLONE | SPRAY/ADSORB TOWER | VENTURI SCRUBBER | CARBON ADSORBER | ELECTROSTATIC PRECIPITATOR | BAGHOUSE | THERMAL/CATALYTIC AFTERBURNER | DRY SCRUBBER |
|---|---|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [ ] |
| 24-0 | 24-1 | 24-2 | 24-3 | 24-4 | 24-5 | 24-6 | 24-7 | 24-8 |

OTHER [X] 24-9 DESCRIBE: May experiment with different control technologies for emissions not captured by RTO

**10 ANNUAL FUEL CONSUMPTION FOR THIS EQUIPMENT**

| OIL - 1000 GALLONS | SULFUR % | GRADE | NATURAL GAS - 1000 $FT^3$ | LP GAS - 100 GALLONS | GRADE |
|---|---|---|---|---|---|
| 26-31 | 32-33 | 34 | 35-41 | 42-45 | |

| COAL - TONS | SULFUR % | ASH % | WOOD - TONS | MOISTURE % |
|---|---|---|---|---|
| 46-52 | 53-55 | 56-58 | 59-63 | 64-65 |

| Other Fuels (Specify Type) | 66-1 | Annual Amount Consumed (Specify Type) | Other Fuels (Specify Type) | 66-2 | Annual Amount Consumed (Specify Units) |
|---|---|---|---|---|---|
| | | | | | |

1 = Coke 2 = COG 3 = BFG 4 = Other

**11 OPERATING SCHEDULE [for this equipment]**

| CONTINUOUS OPERATION | BATCH PROCESS | HOURS PER BATCH | BATCH PER WEEK | HOURS PER DAY | DAYS PER WEEK | DAYS PER YEAR |
|---|---|---|---|---|---|---|
| [ ] | [X] | [ ] | [ ] | [2 4] | [7] | [3 6 5] |
| 67-1 | 67-2 | 68-69 | | 70-71 | 72 | 73-75 |

SEASONAL VARIATION IN OPERATION:

| NO VARIATION | WINTER PERCENT | SPRING PERCENT | SUMMER PERCENT | FALL PERCENT | (TOTAL SEASONS=100%) |
|---|---|---|---|---|---|
| [X] | [ ] | [ ] | [ ] | [ ] | |
| 76 | 77-78 | 79-80 | 81-82 | 83-84 | |

**12 EQUIVALENT STACK INFORMATION - IS EXHAUST THROUGH DOORS, WINDOWS, ETC., ONLY?**

Y or N [N]
85

See Attached

| IF NOT, THEN → | HEIGHT ABOVE GROUND (FT) | INSIDE DIAMETER AT TOP (INCHES) | EXIT TEMPERATURE (°F) | EXIT VELOCITY (FT/SEC) |
|---|---|---|---|---|
| | 86-88 | 89-91 | 92-95 | 96-98 |

**NOTE:**

**ATTACH A BLOCK DIAGRAM OF PROCESS/PROCESS LINE, INDICATING NEW EQUIPMENT AS REPORTED ON THIS FORM AND ALL EXISTING EQUIPMENT, INCLUDING CONTROL DEVICES AND EMISSION POINTS.**

**13 INPUT MATERIALS [for this equipment only]**

**IS ANY OF THIS DATA TO BE CONSIDERED CONFIDENTIAL?** [N] Y or N

| NAME | CAS NO.(if applicable) | INPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. See Attached Block Diagram | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| TOTAL | | | | | |

**14 OUTPUT MATERIALS [for this equipment]**

**PROCESS/PRODUCT STREAM**

| NAME | CAS NO.(if applicable) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. See Attached Block Diagram | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

**15 WASTE STREAMS - SOLID AND LIQUID**

| NAME | CAS NO.(if applicable) | OUTPUT RATE PER HOUR | UNITS | PER YEAR | UNITS |
|---|---|---|---|---|---|
| 1. See Attached Block Diagram | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| TOTAL | | | | | |

**16 TOTAL STACK EMISSIONS (FOR THIS EQUIPMENT ONLY) IN POUNDS PER OPERATING DAY**

**NOTE: Emissions associated with the combustion of natural gas in the RTO were included in a separate permit application.**

| PARTICULATE MATTER | OXIDES OF SULFUR | OXIDES OF NITROGEN |
|---|---|---|
| | | |
| 99-104 | 105-110 | 111-116 |

| CARBON MONOXIDE | VOLATILE ORGANIC COMPOUNDS | PM-10 |
|---|---|---|
| | 28.97 | |
| 117-122 | 123-128 | 129-134 |

**17 TOTAL FUGITIVE EMISSIONS (FOR THIS EQUIPMENT ONLY) IN POUNDS PER OPERATING DAY**

| PARTICULATE MATTER | OXIDES OF SULFUR | OXIDES OF NITROGEN |
|---|---|---|
| | | |
| 135-139 | 140-144 | 145-149 |

| CARBON MONOXIDE | VOLATILE ORGANIC COMPOUNDS | PM-10 |
|---|---|---|
| | 3.22 | |
| 150-154 | 155-159 | 160-164 |

**METHOD USED TO DETERMINE EMISSIONS** (1 = ESTIMATE 2 = EMISSION FACTOR 3 = STACK TEST 4 = OTHER)

| TSP | SOX | NOX | CO | VOC | PM10 |
|---|---|---|---|---|---|
| | | | | 1 | |
| 165 | 166 | 167 | 168 | 169 | 170 |

**AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**

**18 DATE REC'D. LOCAL** _____ **DATE REC'D. STATE** _____ **RETURN TO LOCAL JURISDICTION DATE** _____ **BY** _____

**REVIEWED BY LOCAL JURISDICTION DATE** _____ **BY** _____ **REVIEWED BY STATE DATE** _____ **BY** _____

**19 INVENTORY DATE**

| MONTH YEAR | EQUIPMENT CODE | SCC CODE |
|---|---|---|
| | | |
| 171-174 | 175-177 | 178-185 |

**20**

| ANNUAL OPERATING RATE | MAXIMUM DESIGN HOURLY RATE | PERMIT TO OPERATE MONTH | TRANSACTION DATE (MM/DD/YR) |
|---|---|---|---|
| | | | |
| 186-192 | 193-199 | 200-201 | 202-207 |

| STAFF CODE | VOC CODE | SIP CODE | REGULATION CODE | CONFIDENTIALITY |
|---|---|---|---|---|
| | | | | |
| 208-210 | 211 212 | 213 214 | 215-218 | 219 |

**POINT DESCRIPTION**

220-238

**ACTION**

239 A: ADD C: CHANGE

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Blvd, Baltimore, Maryland 21230
(410) 537-3230 1-800-633-6101 www.mde.state.md.us
**Air and Radiation Management Administration Air Quality Permits Program**

MAR 18 2013

# Summary of Demonstrations for Meeting the ambient impact Requirement (26.11.15.05) and the T-Bact Requirement (26.11.15.06)

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L. Gore & Associates, Inc. - Elk Mills V Site

1. Summary of T-BACT Demonstration: List all emission reduction options considered in determining T-BACT starting with the option that reduces emissions the most. Supporting documentation must be attached. must be attached.

| Emission Reduction Option | % Emission Reduction | COSTS Capital | COSTS Annual Operating |
|---|---|---|---|
| 1. Thermal Oxidizers | 95% | $1,300,000 | $150,000 |
| 2. Carbon Adsorption | 95% | $300,000 | $30,000 |
| 3. | | | |
| 4. | | | |
| 5. | | | |

2. Identify the emission reduction option selected as T-BACT and briefly explain why this is the best selection. Supporting documentation must be attached.

**A Regenerative Thermal Oxidizer (RTO) is to be installed and used as a control device in order to ensure that VOC emissions from all digital printing at the premise does not exceed 100 pounds per day per COMAR 26.11.19.18(F).**

3. List screening levels and highest estimated off-site concentrations (ug/m³) resulting from **premises-wide allowable emissions (1)** of each Toxic Air Pollutant that is covered by the regulations and discharged from the installation or source applying for the permit. See the General Instructions for more detail Supporting documentation **must** be attached.

| | Toxic Air Pollutant | CAS Number | SCREENING LEVELS (S) | | | OFF-SITE CONCENTRATIONS | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1-HR | 8-HR | ANNUAL | 1-HR | 8-HR | ANNUAL |
| 1 | See Attached Spreadsheet | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |

☐ If unable to use a Screening Analysis, check the box, and attach the Second Tier Analysis or Special Permit request to this form.

(1) **Premises** is defined as: "all the installations or other sources that are located on contiguous or adjacent properties and that are under the control of one person or under common control of a group of person" (COMAR 26.11.15.01B (12)).

**Allowable Emissions** are defined as: "the maximum emissions a source or installation is capable of discharging after consideration of any physical or operational limitations required by this subtitle or by enforceable conditions included in a applicable air quality permit to construct, permit to operate, secretarial order, plan for compliance. consent agreement, or court order" (COMAR 26.11.15.01B (2)).

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Blvd, Baltimore, Maryland 21230
(410) 537-3230 1-800-633-6101 www.mde.state.md.us

MAR 18 2013

**Air and Radiation Management Administration Air Quality Permits Program**

# Emissions Data

**Fill out one form 5B for each stack or other emission point subject to the regulations (See the General Instructions for more detail).**

**DO NOT WRITE IN THIS SPACE**

**Company Name** W.L. Gore & Associates, Inc. - Elk Mills V Site

1. Number Identifying This Emission Point On Required Plot Plan _____
   (If applicable, list company's internal I.D.) _____

2. Brief description of Emission Point, Associated Equipment and Control Devices

   **Printing process with ink jet printers used to apply solvent based inks onto substrates**

3. Emissions Schedule (for this stack or emission point)

| Continuous | Intermittent | Minutes/Hour | Hours/Day | Days/Week | Weeks/Year |
|---|---|---|---|---|---|
| | X | | 24 | 7 | 52 |

Seasonal Variation: None X Winter % ____ Spring % ____ Summer % ____ Fall % ____

4. Stack Information **See Attached**

Height above ground (ft) _____ Inside diameter at top of round stack (ft) _____ Exit temperature (F) _____

Height above structures (ft) _____ Dimensions at top of rectangular stack (ft) _____ Exit Velocity (ft/min) _____

Distance to nearest Property Line (ft) _____ Gas volume (acfm) _____

Dimensions of building stack is on (ft): Height ____ Length ____ Width ____

5. Control Devices Associated With This Stack or Emission Point

| Control Devices | Number | Control Device | Number |
|---|---|---|---|
| 0. None | | 7. Elec. Precipitator | |
| 1. Simple cyclone | | 8. Baghouse | |
| 2. Multiply cyclone | | 9. Thermal afterburner | X |
| 3. Spray tower | | 10 Catalytic afterburner | |
| 4. Absorption tower | | 11. Other (specify) | X |
| 5. Venturi scrubber | | May experiment with different control technologies for | |
| 6. Carbon adsorber | | emissions not captured by RTO | |

6. Criteria Pollutant Emission (attach supporting documentation)

| Criteria Pollutants | Estimated Emissions: Design Capacity (lb/hr) | Projected (lb/hr) | Operations (1) (ton/yr) |
|---|---|---|---|
| Particulate Matter | | | |
| PM10 | | | |
| Oxides of Sulfur | | | |
| Oxides of Nitrogen | | | |
| Carbon Monoxide | | | |
| VOC (Total) | 1.34 | 1.34 | 5.87 |
| Lead | | | |

NOTE: Emissions associated with the combustion of natural gas in the RTO were included in a separate permit application.

7. Toxic Air Pollutant Emissions (attach supporting documentation)

| | Toxic Air Pollutant (list all) | CAS Number | Estimated Emissions: Design Capacity (lb/hr) | Projected Operations (1) (lb/hr) | Projected Operations (1) (ton/yr) | Used for Form 5A, Part 3 (2) (lb/hr) | Used for Form 5A, Part 3 (2) (ton/yr) |
|---|---|---|---|---|---|---|---|
| 1. | See Attached Spreadsheets | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| 9. | | | | | | | |

(1) Based on the emission schedule reported in Block three of this form.

(2) This column must be filled in with the emission estimates used to demonstrate compliance with the regulations. If continuous emissions at design capacity allow you to demonstrate compliance with all air pollution regulations, then these emissions should be listed here. If the air toxics regulations or any other regulations require you to discharge less than continuously at design capacity, then these emissions should be listed here.

**W.L. Gore & Associates, Inc.**
**Elk Mills V Site**
**Update to Permit No. 6-0321 – Printing Process**

**Detailed Narrative of Process**

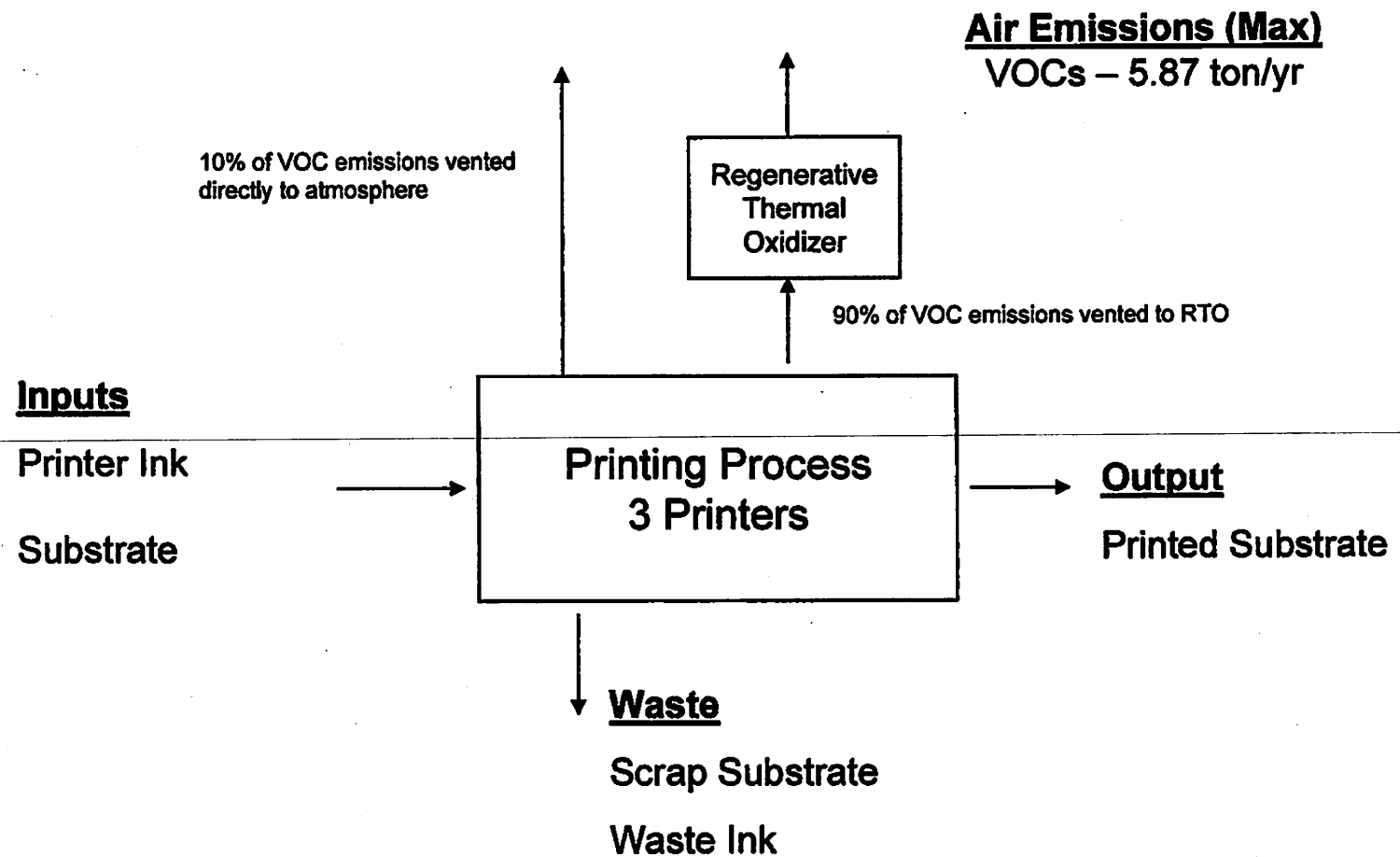
Permit No. 6-0321 was issued to W.L. Gore & Associates, Inc. (Gore) on October 16, 2012 for the installation of one ink jet printer at the Elk Mills V Site. Gore is submitting this permit application for the installation of two (2) additional printers at the site. The three (3) ink jet printers will be used to apply solvent based inks onto substrates with the use of digital imaging.

Emissions from the three (3) printers will be routed to a regenerative thermal oxidizer (RTO) to control VOC emissions. It is estimated that approximately 90% of the VOC emissions will be captured and controlled by the RTO. The remaining 10% of uncontrolled VOC emissions will be vented out of the building through a single stack. Gore may experiment with other control technologies to control VOC emissions that will not be routed to the RTO.

The RTO that will be used is the same RTO that was applied for in the permit application submitted to the Department in October 2012 for the installation of a spray coating process at Elk Mills V. The details regarding the RTO can be found in that permit application.

The RTO that will be used as a control device has not been installed yet. Since it may take some time until the new RTO is installed, started up, and operating reliably, Gore would like the ability to operate at least one ink jet printer without a control device. General Requirements for Digital Imaging per COMAR 26.11.19.18(F) stipulates that VOC emissions from all digital printing at a premise may not exceed 100 pounds per day. Estimated uncontrolled emissions from one ink jet printer are less than 100 pounds per day. If more than one ink jet printer is operated, the RTO will be used to control emissions or the material throughput will be restricted in order to ensure that VOC emissions from the printers do not exceed 100 pounds per day. It is Gore's intention that, once the RTO is operating reliably, emissions from all of the printers will be controlled by the RTO.

# Block Diagram: Printing Process




W.L. Gore & Associates, Inc. - Elk Mills V Site

**W.L. Gore & Associates, Inc. - Elk Mills V Site: Premise Number 015-0151**
**Update to Permit No. 6-0321 - Printing Process**
**Form 5A, Part 3**

## Screen Input Data:

RTO stack

| | | |
|---|---|---|
| Emission Rate: | 1 | g/s |
| Stack Height: | 65 | feet |
| Stack Diameter: | 3.33 | feet |
| Velocity: | 65.70 | ft/s |
| | 3,942 | ft/min |
| Exit Temperature: | 270 | F |
| Stack Volumetric Flow Rate: | 34,400 | ACFM |
| Building Height: | 10.9 | meters |
| Building Width: | 152.4 | meters |
| Buidling Length: | 153.6 | meters |

Run screen at 1 gram per second and ratio the emissions accordingly.

## Screen Results:

| | | | Off-Site Concentration | | |
|---|---|---|---|---|---|
| Toxic Air Pollutant | Emission Rate (lb/hr) | Emission rate (g/s) | 1 hour (ug/m3) | 8 hour (ug/m3) | Annual (ug/m3) |
| | | 1 | | | |
| SI1 Component A | 0.16 | 2.04E-02 | --- | 0.16 | --- |
| SI1 Component B | 0.03 | 3.35E-03 | --- | 0.03 | --- |
| SI1 Component C | 0.01 | 1.81E-03 | 0.02 | 0.01 | --- |
| SI1 Component D | 0.002 | 2.58E-04 | --- | 0.002 | --- |
| | | | | | |

**W.L. Gore & Associates, Inc. - Elk Mills V Site: Premise Number 015-0151**
**Update to Permit No. 6-0321 - Printing Process**
**Form 5A, Part 3**

## Screen Input Data:

Atmospheric Stack

| | | |
|---|---|---|
| Emission Rate: | 1 | g/s |
| Stack Height: | 50 | feet |
| Stack Diameter: | 4.17 | feet |
| Velocity: | 39.68 | ft/s |
| | 2,381 | ft/min |
| Exit Temperature: | 70 | F |
| Stack Volumetric Flow Rate: | 32,466 | ACFM |
| Building Height: | 10.9 | meters |
| Building Width: | 152.4 | meters |
| Building Length: | 153.6 | meters |

Run screen at 1 gram per second and ratio the emissions accordingly.

## Screen Results:

| | | | Off-Site Concentration | | |
|---|---|---|---|---|---|
| Toxic Air Pollutant | Emission Rate (lb/hr) | Emission rate (g/s) | 1 hour (ug/m3) | 8 hour (ug/m3) | Annual (ug/m3) |
| | | 1 | | | |
| SI1 Component A | 0.90 | 1.132E-01 | --- | 8.22 | --- |
| SI1 Component B | 0.15 | 1.863E-02 | --- | 1.35 | --- |
| SI1 Component C | 0.08 | 1.003E-02 | 1.04 | 0.73 | --- |
| SI1 Component D | 0.01 | 1.433E-03 | --- | 0.10 | --- |
| | | | | | |

## Screen Result Summary

| | | | Off-Site Concentration | | |
|---|---|---|---|---|---|
| Toxic Air Pollutant | Emission Rate (lb/hr) | Emission rate (g/s) | 1 hour (ug/m3) | 8 hour (ug/m3) | Annual (ug/m3) |
| | | | | | |
| SI1 Component A | 1.06 | 1.336E-01 | --- | 8.38 | --- |
| SI1 Component B | 0.17 | 2.199E-02 | --- | 1.38 | --- |
| SI1 Component C | 0.09 | 1.184E-02 | 1.06 | 0.74 | --- |
| SI1 Component D | 0.01 | 1.691E-03 | --- | 0.11 | --- |
| | | | | | |

W.L. Gore & Associates, Inc. - Elk Mills V Site: Premise Number 015-0151
Update to Permit No. 6-0321 - Printing Process
Form 5B, Part 7

## Emissions Estimates:

| | ESTIMATED VOC EMISSIONS | | | |
|---|---|---|---|---|
| CHEMICAL NAME | LB/HR, Design Capacity | LB/HR, Projected | LB/DAY | TON/YR** |
| | | | | |
| SI1 Component A | 0.35 | 0.35 | 8.48 | 1.55 |
| SI1 Component B | 0.06 | 0.06 | 1.39 | 0.25 |
| SI1 Component C | 0.03 | 0.03 | 0.75 | 0.14 |
| SI1 Component D | 0.00 | 0.00 | 0.11 | 0.02 |
| | | | | |
| Total VOCs Per Printer | 0.45 | 0.45 | 10.73 | 1.96 |
| **Total VOCs from All Printers** | **1.34** | **1.34** | **32.19** | **5.87** |

** Estimated Emissions, ton/yr, based on emissions schedule of 24 hours per day, 7 days per week, 52 weeks per year

09/11/12
14:23:25

```
***  SCREEN3 MODEL RUN  ***
*** VERSION DATED 96043 ***

Elk Mills V - Printing Process RTO Stack

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE              =        POINT
   EMISSION RATE (G/S)      =      1.00000
   STACK HEIGHT (M)         =      19.8120
   STK INSIDE DIAM (M)      =       1.0150
   STK EXIT VELOCITY (M/S)=        20.0652
   STK GAS EXIT TEMP (K)    =     405.3722
   AMBIENT AIR TEMP (K)     =     293.0000
   RECEPTOR HEIGHT (M)      =       2.0000
   URBAN/RURAL OPTION       =        RURAL
   BUILDING HEIGHT (M)      =       0.0000
   MIN HORIZ BLDG DIM (M) =         0.0000
   MAX HORIZ BLDG DIM (M) =         0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   STACK EXIT VELOCITY WAS CALCULATED FROM
   VOLUME FLOW RATE =   16.234978      (M**3/S)

BUOY. FLUX =   14.048 M**4/S**3;  MOM. FLUX =   74.948 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
```

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 0.000 | 1 | 1.0 | 1.0 | 320.0 | 168.01 | 3.20 | 3.18 | NO |
| 100. | 0.3432E-01 | 2 | 5.0 | 5.2 | 1600.0 | 49.45 | 19.79 | 11.53 | NO |
| 200. | 5.742 | 1 | 3.0 | 3.1 | 960.0 | 69.21 | 51.39 | 31.66 | NO |
| 300. | 10.64 | 3 | 10.0 | 10.7 | 3200.0 | 34.33 | 34.54 | 20.75 | NO |
| 400. | 11.41 | 3 | 8.0 | 8.6 | 2560.0 | 37.96 | 44.95 | 26.95 | NO |
| 500. | 11.08 | 3 | 5.0 | 5.4 | 1600.0 | 48.85 | 55.40 | 33.48 | NO |
| 600. | 10.72 | 3 | 4.5 | 4.8 | 1440.0 | 52.08 | 65.36 | 39.41 | NO |
| 700. | 10.14 | 3 | 4.0 | 4.3 | 1280.0 | 56.11 | 75.21 | 45.32 | NO |
| 800. | 9.542 | 3 | 3.5 | 3.7 | 1120.0 | 61.29 | 84.97 | 51.24 | NO |
| 900. | 8.989 | 3 | 3.0 | 3.2 | 960.0 | 68.21 | 94.69 | 57.22 | NO |
| 1000. | 8.903 | 4 | 5.0 | 5.5 | 1600.0 | 47.87 | 68.60 | 33.08 | NO |
| 1100. | 8.642 | 4 | 5.0 | 5.5 | 1600.0 | 47.87 | 74.74 | 35.05 | NO |
| 1200. | 8.321 | 4 | 5.0 | 5.5 | 1600.0 | 47.87 | 80.84 | 36.97 | NO |
| 1300. | 8.018 | 4 | 4.5 | 5.0 | 1440.0 | 50.99 | 86.98 | 39.03 | NO |
| 1400. | 7.716 | 4 | 4.5 | 5.0 | 1440.0 | 50.99 | 92.98 | 40.84 | NO |
| 1500. | 7.456 | 4 | 4.0 | 4.4 | 1280.0 | 54.89 | 99.05 | 42.86 | NO |
| 1600. | 7.196 | 4 | 4.0 | 4.4 | 1280.0 | 54.89 | 104.97 | 44.58 | NO |
| 1700. | 6.950 | 4 | 3.5 | 3.9 | 1120.0 | 59.90 | 111.00 | 46.60 | NO |
| 1800. | 6.739 | 4 | 3.5 | 3.9 | 1120.0 | 59.90 | 116.85 | 48.24 | NO |
| 1900. | 6.524 | 4 | 3.5 | 3.9 | 1120.0 | 59.90 | 122.67 | 49.86 | NO |
| 2000. | 6.308 | 4 | 3.5 | 3.9 | 1120.0 | 59.90 | 128.46 | 51.44 | NO |
| 2100. | 6.139 | 4 | 3.0 | 3.3 | 960.0 | 66.58 | 134.39 | 53.45 | NO |
| 2200. | 5.972 | 4 | 3.0 | 3.3 | 960.0 | 66.58 | 140.12 | 54.97 | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2300. | 6.112 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 110.26 | 40.91 | NO |
| 2400. | 6.275 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 114.46 | 41.70 | NO |
| 2500. | 6.421 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 118.66 | 42.49 | NO |
| 2600. | 6.549 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 122.84 | 43.26 | NO |
| 2700. | 6.661 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 127.00 | 44.03 | NO |
| 2800. | 6.758 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 131.16 | 44.78 | NO |
| 2900. | 6.841 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 135.30 | 45.53 | NO |
| 3000. | 6.911 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 139.42 | 46.27 | NO |
| 3500. | 7.100 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 159.88 | 49.84 | NO |
| 4000. | 7.093 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 180.05 | 53.24 | NO |
| 4500. | 6.898 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 199.98 | 56.11 | NO |
| 5000. | 6.660 | 5 | 1.0 | 1.3 | 10000.0 | 86.03 | 219.68 | 58.83 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 393. | 11.41 | 3 | 8.0 | 8.6 | 2560.0 | 37.96 | 44.34 | 26.59 | NO |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**********
*** SUMMARY OF SCREEN MODEL RESULTS ***
**********

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 11.41 | 393. | 0. |

**********
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**********

02/06/13
10:21:49

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Elk Mills V - Printing Process Atmospheric Stack

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE              =        POINT
   EMISSION RATE (G/S)      =      1.00000
   STACK HEIGHT (M)         =      15.2400
   STK INSIDE DIAM (M)      =       1.2710
   STK EXIT VELOCITY (M/S)=        12.0762
   STK GAS EXIT TEMP (K)    =     294.2611
   AMBIENT AIR TEMP (K)     =     293.0000
   RECEPTOR HEIGHT (M)      =       2.0000
   URBAN/RURAL OPTION       =        RURAL
   BUILDING HEIGHT (M)      =      10.9000
   MIN HORIZ BLDG DIM (M) =      152.4000
   MAX HORIZ BLDG DIM (M) =      153.6000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   STACK EXIT VELOCITY WAS CALCULATED FROM
   VOLUME FLOW RATE =    15.322231      (M**3/S)

BUOY. FLUX =     0.205 M**4/S**3;  MOM. FLUX =    58.646 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
```

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | SIGMA Y (M) | SIGMA Z (M) | DWASH |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 0.000 | 1 | 1.0 | 1.0 | 320.0 | 59.95 | 2.84 | 2.81 | NO |
| 100. | 92.92 | 1 | 3.0 | 3.1 | 960.0 | 20.66 | 26.85 | 13.95 | SS |
| 200. | 103.0 | 5 | 5.0 | 5.8 | 10000.0 | 16.73 | 11.63 | 9.18 | SS |
| 300. | 103.0 | 6 | 4.0 | 5.0 | 10000.0 | 17.62 | 11.23 | 9.17 | SS |
| 400. | 102.7 | 6 | 4.0 | 5.0 | 10000.0 | 17.62 | 14.64 | 10.44 | SS |
| 500. | 93.35 | 6 | 4.0 | 5.0 | 10000.0 | 17.62 | 17.97 | 11.22 | SS |
| 600. | 87.49 | 6 | 4.0 | 5.0 | 10000.0 | 17.62 | 21.24 | 12.25 | SS |
| 700. | 81.16 | 6 | 4.0 | 5.0 | 10000.0 | 17.62 | 24.46 | 13.25 | SS |
| 800. | 75.00 | 6 | 3.5 | 4.4 | 10000.0 | 18.87 | 27.63 | 13.82 | SS |
| 900. | 74.39 | 5 | 1.0 | 1.2 | 10000.0 | 34.00 | 46.58 | 20.68 | NO |
| 1000. | 75.54 | 5 | 1.0 | 1.2 | 10000.0 | 34.00 | 51.22 | 22.28 | NO |
| 1100. | 74.10 | 5 | 1.0 | 1.2 | 10000.0 | 34.00 | 55.82 | 23.59 | NO |
| 1200. | 71.99 | 5 | 1.0 | 1.2 | 10000.0 | 34.00 | 60.39 | 24.85 | NO |
| 1300. | 69.49 | 5 | 1.0 | 1.2 | 10000.0 | 34.00 | 64.92 | 26.08 | NO |
| 1400. | 66.80 | 5 | 1.0 | 1.2 | 10000.0 | 34.00 | 69.42 | 27.27 | NO |
| 1500. | 64.57 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 49.26 | 18.64 | NO |
| 1600. | 65.17 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 52.21 | 19.37 | NO |
| 1700. | 65.29 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 55.14 | 20.08 | NO |
| 1800. | 65.04 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 58.06 | 20.78 | NO |
| 1900. | 64.49 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 60.96 | 21.47 | NO |
| 2000. | 63.72 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 63.85 | 22.14 | NO |
| 2100. | 62.53 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 66.73 | 22.71 | NO |
| 2200. | 61.28 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 69.59 | 23.27 | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2300. | 60.00 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 72.43 | 23.82 | NO |
| 2400. | 58.69 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 75.27 | 24.35 | NO |
| 2500. | 57.37 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 78.09 | 24.88 | NO |
| 2600. | 56.06 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 80.90 | 25.40 | NO |
| 2700. | 54.75 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 83.71 | 25.91 | NO |
| 2800. | 53.47 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 86.50 | 26.41 | NO |
| 2900. | 52.21 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 89.28 | 26.90 | NO |
| 3000. | 50.97 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 92.05 | 27.39 | NO |
| 3500. | 45.16 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 105.76 | 29.37 | NO |
| 4000. | 40.29 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 119.26 | 31.20 | NO |
| 4500. | 36.21 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 132.59 | 32.92 | NO |
| 5000. | 32.77 | 6 | 1.0 | 1.3 | 10000.0 | 31.86 | 145.75 | 34.54 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 342. | 103.7 | 6 | 4.0 | 5.0 | 10000.0 | 17.62 | 12.71 | 9.72 | SS |

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

```
****************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
****************************************
```

| *** CAVITY CALCULATION - 1 *** | | | *** CAVITY CALCULATION - 2 *** | | |
|---|---|---|---|---|---|
| CONC (UG/M**3) | = | 0.000 | CONC (UG/M**3) | = | 0.000 |
| CRIT WS @10M (M/S) | = | 99.99 | CRIT WS @10M (M/S) | = | 99.99 |
| CRIT WS @ HS (M/S) | = | 99.99 | CRIT WS @ HS (M/S) | = | 99.99 |
| DILUTION WS (M/S) | = | 99.99 | DILUTION WS (M/S) | = | 99.99 |
| CAVITY HT (M) | = | 10.90 | CAVITY HT (M) | = | 10.90 |
| CAVITY LENGTH (M) | = | 59.43 | CAVITY LENGTH (M) | = | 59.33 |
| ALONGWIND DIM (M) | = | 152.40 | ALONGWIND DIM (M) | = | 153.60 |

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

```
****************************************
      END OF CAVITY CALCULATIONS
****************************************
```

```
****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

| CALCULATION PROCEDURE | MAX CONC (UG/M**3) | DIST TO MAX (M) | TERRAIN HT (M) |
|---|---|---|---|
| SIMPLE TERRAIN | 103.7 | 342. | 0. |

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

# Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON YOU THE CERTIFICATE HOLDER. THIS CERTIFICATE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW. POLICY LIMITS ARE NO LESS THAN THOSE LISTED, ALTHOUGH POLICIES MAY INCLUDE ADDITIONAL SUBLIMIT/LIMITS NOT LISTED BELOW.

**This is to Certify that**

W.L. GORE & ASSOCIATES, INC.
ENVIRONMENTAL, HEALTH & SAFETY
501 VIEVE'S WAY

ELKTON MD 21922-1320

NAME AND ADDRESS OF INSURED

Liberty Mutual.

is, at the issue date of this certificate, insured by the Company under the policy(ies) listed below. The insurance afforded by the listed policy(ies) is subject to all their terms, exclusions and Conditions and is not altered by any requirement, term or condition of any contract or other document with respect to which this certificate may be issued.

| TYPE OF POLICY | EXP DATE ☐ CONTINUOUS ☐ EXTENDED ☑ POLICY TERM | POLICY NUMBER | LIMIT OF LIABILITY | |
|---|---|---|---|---|
| WORKERS COMPENSATION | 3/31/2013 | WA7-63D-004150-062<br>WC7-631-004150-072 | COVERAGE AFFORDED UNDER WC LAW OF THE FOLLOWING STATES: All States Except State Fund States and States of OR and WI | EMPLOYERS LIABILITY<br>Bodily Injury by Accident $1,000,000 Each Accident<br>Bodily Injury By Disease $1,000,000 Policy Limit<br>Bodily Injury By Disease $1,000,000 Each Person |
| COMMERCIAL GENERAL LIABILITY<br>☐ OCCURRENCE<br>☐ CLAIMS MADE | RETRO DATE | | General Aggregate<br>Products / Completed Operations Aggregate<br>Each Occurrence<br>Personal & Advertising Injury Per Person / Organization<br>Other | Other |
| AUTOMOBILE LIABILITY<br>☐ OWNED<br>☐ NON-OWNED<br>☐ HIRED | | | | Each Accident—Single Limit B.I. And P.D. Combined<br>Each Person<br>Each Accident or Occurrence<br>Each Accident or Occurrence |
| OTHER | | | | |

ADDITIONAL COMMENTS

Re: Evidence of coverage for permit applications.

* If the certificate expiration date is continuous or extended term, you will be notified if coverage is terminated or reduced before the certificate expiration date.

NOTICE OF CANCELLATION: (NOT APPLICABLE UNLESS A NUMBER OF DAYS IS ENTERED BELOW.) BEFORE THE STATED EXPIRATION DATE THE COMPANY WILL NOT CANCEL OR REDUCE THE INSURANCE AFFORDED UNDER THE ABOVE POLICIES UNTIL AT LEAST 30 DAYS NOTICE OF SUCH CANCELLATION HAS BEEN MAILED TO:

Liberty Mutual Insurance Group

Certificate Holder

Maryland Department of Environment
Attn: Insurance Department

1800 Washington Boulevard, Suite 735
Baltimore MD 21230-1720

Lisa M. Davis
Lisa M. Davis
AUTHORIZED REPRESENTATIVE

Bala Cynwyd
15 Kings Grant Drive
Bala Cynwyd PA 19004
OFFICE

610-664-6380
PHONE

3/21/2012
DATE ISSUED

This certificate is executed by LIBERTY MUTUAL INSURANCE GROUP as respects such insurance as is afforded by those Companies NM 772 07-10

015-0151-6-0321 (?) Elk Mills V

- Construction Permit issued 4-25-13 to install 2 ink-jet printers for a total of 3 printers to apply solvent based inks onto substrate

(check) p.7 p.10 VOC content of each ink, coating, cleanup materials or any other VOC used at premises

p.8 Maintain emissions.

p.10 - Part D (1)(b) - written descriptions of good operating practices to ↓ VOCs.

" - VOC leak detection & repair logs

- ~~Days~~

- Use RTO - 90% control & 10% fugitive (not captured)
  - before finish install claim to use 1 printer only to keep emissions <100 # VOC/day

- ~~Est.~~ Est. emissions of 5.87 tpy max (over)

Elk Mills V
same address
(?)
5.87 tpy VOC
PTE

24-015-00079 50
MD0000000 Marcie G. 24015-00079
015-0151


# MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary


March 26, 2013

Ms. Tracey A. Regester
W.L Gore & Associates, Inc.
105 Vieve's Way
Elkton, MD 21921

Dear Ms. Regester:

The purpose of this letter is to inform you that the Air and Radiation Management Administration (ARMA) received your permit to construct application for the installation of two (2) Ink-jet printers to be located at 105 Vieve's Way, Elkton, Maryland 21921.

Enclosed is a payment transmittal for the $1,000.00 application fee. Please pay the fee as soon as possible in order to avoid delays in the permitting process.

After a preliminary evaluation, the Department has determined that your application contains all information needed at this time for the review of the application to continue. However, after a more in-depth review is performed, you will be contacted at a later date if further information is needed or if any discrepancy in your application needs to be clarified.

If you have any questions, feel free to contact me at (410) 537-3225.

Sincerely,

Marcellina Gurley
Unit Lead, Regulatory and Compliance Engineer
Air Quality Permits Program
Air & Radiation Management Administration

MG/jm

Enclosure

MDE

# PERMIT TO CONSTRUCT
# PAYMENT TRANSMITTAL
# TR # 14785

**Payer:** Ms. Tracey A. Regester
W.L Gore & Associates, Inc.
105 Vieve's Way
Elkton, MD 21921

**Source Description:** Installation of two (2) ink-jet printers to the existing printing process.

**Site:** Elk Mills V Plant
105 Vieve's Way
Elkton, MD 21921

**Application Fee: $1000.00**

The fee may be paid by check payable to **Department of the Environment/Clean Air Fund** or electronically by **bank ACH transfer**. If you choose to pay by check, please write on your check the Transmittal Number located at the top of this page and mail it along with a copy of this payment transmittal to:

**Maryland Department of the Environment**
**P.O. Box 2037**
**Baltimore, Maryland 21203-2037**

To pay electronically by bank ACH transfer, please use the following Bank Transfer Information:
Bank of America Account Number 003936831434; Routing Number 052001633.
For payment questions, please call Paul Kadin of our Fiscal Unit at (410) 537-3140.

**IMPORTANT: SUBMITTING YOUR PAYMENT VIA THE P.O. BOX OR ACH TRANSFER WILL ENSURE TIMELY AND PROPER CREDIT.**

---

FOR MDE USE ONLY

| | |
|---|---|
| Dept: | U00 |
| Agency Object: | 5661 |
| PCA: | 13706 |
| Receipt No.: | |
| Receipt Date: | |

---

cc: M. Gurley
March 20, 2013

Please return one copy of this payment transmittal with your remittance.

ACH CREDITS

```
5-3 PAY MGT SYSTEM   4                    5 3051036447 6 CCD 7 BBS PAYMNT 8  4/17/13 9  13/04/1810 108 11 2 12 05103644
6-2 22 3 05200163 4 3 5 00000003936831434 6      2,096.86 7 A5415B1A5415B1  8 MD ST DEPT OF ENVIR, U 11    13 051036443039181

                    *** BATCH COUNT :      1      *** BATCH AMOUNT:            2,096.86

5-3 BANKCARD         4                    5 1210001923 6 CCD 7 MERCH SETL 8 13/04/18 9  13/04/1810     11 1 12 11100002
6-2 22 3 05200163 4 3 5 00000003936831434 6        390.00 7 430134750169047 8 MARYLAND DEPT OF THE E 11 8  13 111000029833493

                    *** BATCH COUNT :      1      *** BATCH AMOUNT:              390.00

5-3 W. L. GORE & ASS 4                    5 3510083365 6 CTX 7 CORP PYMNT 8  0/00/00 9  13/04/1810     11 1 12 05100001
6-2 22 3 05200163 4 3 5 00000003936831434 6      1,500.00 7 PT1921576       8 DEPT OF THE ENVI       11    13 011900259173483
7-3A ISA+  +          +  +          +01+070119029      +ZZ+BOFAECSUSO     +130417+070 4 0001
7-3A 0+U+00401+000001027+1+P+:'GS+RA+070119029US+BOFAECSUSO+20130417+0700+934+X+00401 4 0002
7-3A 0'ST+820+0127'BPR+C+1500+C+ACH+CTX+01+053000196+DA+004467083035+3510083365++01+0 4 0003
7-3A 52001633+DA+003936831434+20130418'TRN+1+PT1921576'CUR+PE+USD'REF+CA+00'N1+PR+W. 4 0004
7-3A L. GORE & ASSOCIATES, INC. - MRO'N3+EMAIL  ACCOUNTSPAYABLE-MROOWLGORE.C+P O BOX 4 0005
7-3A 1370'N4+ELKTON+MD+219221370+US 'N1+PE+DEPT OF THE ENVIRONMENT/CLEAN AIR F'N4+BAL 4 0006
7-3A TIMORE++21203+US'ENT+1'RMR+ZZ+TR 14757++500'REF+PO+W.L. GORE - CHERRY HILL'DTM+0 4 0007
7-3A 03+20130307'RMR+ZZ+TR 14785++1000'REF+PO+TR 14785'DTM+003+20130320'SE+18+0127'GE 4 0008
7-3A +0001+934'IEA+0001+000001027'                                                    4 0009

                    *** BATCH COUNT :      1      *** BATCH AMOUNT:            1,500.00

5-3 PAY MGT SYSTEM   4                    5 3051036447 6 CCD 7 BBS PAYMNT 8  4/17/13 9  13/04/1810 108 11 2 12 05103644
6-2 22 3 05200163 4 3 5 00000003936831434 6     20,683.13 7 B9009P1B9009P1  8 MARYLAND DEPARTMENT OF 11    13 051036443039213

                    *** BATCH COUNT :      1      *** BATCH AMOUNT:           20,683.13

5-3 ASAP             4                    5 9051036803 6 CTX 7 GRANT PAY  8 13/04/17 9  13/04/1810 108 11 2 12 05103680
6-2 22 3 05200163 4 3 5 00000003936831434 6      1,776.00 7 041713B0000049  8 MDE                    11    13 051036800000097
7-3A ISA*00*          *00*          *17*000000051036803*ZZ*000000002436431*130417*120 4 0001
7-3A 0*U*00304*000000097*0*P*~\GS*RA*051036803*2436431*130417*120008*0000097*X*003040 4 0002
7-3A \ST*820*0000097\BPR*C*1776.00*C*ACH*CTX*01*051036803***9051036803**01*052001633* 4 0003
7-3A DA*3936831434*130418\TRN*1*051036800000097\REF*55*20130417434639720000030939249\ 4 0004
7-3A REF*EM*390101-MDE\N1*PE*MDE*93*2436431\N1*PR*TREASURY FMS-ASAP\ENT**2R*ZZ*141600 4 0005
7-3A 06*MA*93*2436431\N1*2R*USFWS\N1*MA*MDE\RMR*11*F12AP00486-0001-IOW4**1776.00*1776 4 0006
7-3A .00\REF*IX*000001\SE*13*0000097\GE*1*0000097\IEA*1*000000097\                    4 0007
6-2 22 3 05200163 4 3 5 00000003936831434 6    730,861.61 7 041713B0000049  8 MDE                    11    13 051036800000098
7-3A ISA*00*          *00*          *17*000000051036803*ZZ*000000002436431*130417*120 4 0001
7-3A 0*U*00304*000000098*0*P*~\GS*RA*051036803*2436431*130417*120008*0000098*X*003040 4 0002
7-3A \ST*820*0000098\BPR*C*730861.61*C*ACH*CTX*01*051036803***9051036803**01*05200163 4 0003
7-3A 3*DA*3936831434*130418\TRN*1*051036800000098\REF*55*20130417434639720000041040 35 4 0004
7-3A 7\REF*EM*390101-MDE\N1*PE*MDE*93*2436431\N1*PR*TREASURY FMS-ASAP\ENT**2R*ZZ*1418 4 0005
7-3A 0001*MA*93*2436431\N1*2R*OSM\N1*MA*MDE\RMR*11*S13AF20024-0005-HU03**1319.92*1319 4 0006
7-3A .92\REF*IX*000001\RMR*11*S13AF20024-0008-SS07**120000.00*120000.00\REF*IX*000002 4 0007
7-3A \RMR*11*S13AF20024-0003-SS01**72294.43*72294.43\REF*IX*000003\RMR*11*S13AP20018- 4 0008
7-3A 0001-G310**54858.26*54858.26\REF*IX*000004\RMR*11*S13AP20018-0002-G310**19440.89 4 0009
7-3A *19440.89\REF*IX*000005\RMR*11*S11AF20010-0008-FE03**10890.87*10890.87\REF*IX*00 4 0010
7-3A 0006\RMR*11*S13AF20024-0002-BC07**380000.00*380000.00\REF*IX*000007\RMR*11*S12AF 4 0011
7-3A 20036-0004-HC03**72057.24*72057.24\REF*IX*000008\SE*27*0000098\GE*1*0000098\IEA* 4 0012
7-3A 1*000000098\                                                                     4 0013
6-2 22 3 05200163 4 3 5 00000003936831434 6    696,597.40 7 041713B0000049  8 MDE                    11    13 051036800000099
7-3A ISA*00*          *00*          *17*000000051036803*ZZ*000000002436431*130417*120 4 0001
7-3A 0*U*00304*000000099*0*P*~\GS*RA*051036803*2436431*130417*120008*0000099*X*003040 4 0002
```

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APR 18 2013
By

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JDCR 04/18
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- 6 pages
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MD STATE TREASURER 12:24
19.4.2013

24-015-00079

015-0079

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

MAY 21 2013

RECEIVED
MAY 31 2013
3AP20

Mr. Jeff Honer, Engineer
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

Dear: Mr. Honer:

Enclosed please find your Permit to Construct for the drum dryer located in the Natural FPM Production Area at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the drum dryer that you have proposed to install.

The addition of the drum dryer qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the addition of the drum dryer in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ds

Enclosure

cc: Jeanette Wolfe
Shannon Heafey
B. Frank Courtright with copy of permit
EPA Region III

015-0079

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

APR 24 2013

RECEIVED
MAY 01 2013
Air Protection Division
(3AP10)

Ms Lindsay Vitella, Engineer
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

Dear Ms. Vitella:

Enclosed please find your Permit to Construct for the extruder located in the Filled Product Area at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the extruders that you have proposed to be modified.

The addition of the extruder qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the addition of the extruder in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ds

Enclosure

cc: Jeanette Wolfe
Shannon Heafey
B. Frank Courtright with copy of permit
EPA Region III

24-015-00079 Tally

015-0079

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101 • www.mde.state.md.us

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

JUL 9 2013

Ms Keena Dautlick
Environmental Associate
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

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Dear Ms. Dautlick:

Enclosed, please find your Permit to Construct for the two (2) extruders located in the Natural FPM Product Area at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the extruders that you have proposed to be installed.

The addition of the extruders qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the addition of the extruders in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ds

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Ms Keena Dautlick
Environmental Associate
W.L. Gore & Associates, Inc.
2401 Singerly Road
PO Box 1220
Elkton MD 21922-1220

Dear Ms. Dautlick:

Enclosed please find your Permit to Construct for the two (2) high shear mixers to be located in the Filled Product Area at your facility at 2401 Singerly Road, Elkton MD. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the high shear mixers that you have proposed to be installed.

The addition of the two (2) high shear mixers qualifies as an "Off-Permit" change to the facility's Part 70 operating permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the addition of the two (2) high shear mixers in the application for the next renewal of the Part 70 permit

If you have any questions regarding the issuance of this permit, please contact Marcellina Gurley at (410) 537-3225.

Sincerely,

Karen G. Irons, P.E., Administrator
Air Quality Permits Program
Air & Radiation Management Administration

KGI/ds

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