ERGON ASPHALT PARTNERS LP (50519)

Date: 9/6/2024

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: PCP **Number:** 230002

Description of Modifications: PCP230002 was approved by the Department on December 3, 2023 for installation of new Tank 162 (E162). The tank has not been installed. Final design of the tank has resulted in a change in the diameter and height for the new tank, resulting in slight increases in potential emissions from the tank. There is no change in annual throughput or material for the tank, however a larger tank diameter results in a slight increase in potential emissions from 0.28 tons VOC/year to 0.42 tons VOC/year.

Therefore, Ergon is requesting a permit modificaiton to reflect the revised design specifications for the tank and revised potential emissions. Revised potential to emit calculations along with an updated Risk Screening Worksheet are attached. The resultant long-term incremental risk (IR), hazard quotient (HQ), and short-term hazard quotient (HQst) for formaldehyde are all still within the Department's acceptable critera.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): ERGON ASPHALT PARTNERS LP **Facility ID (AIMS):** 50519

Street Address: ERGON ASPHALT PARTNERS LP
KING ST AND JERSEY AVE
GLOUCESTER CITY, NJ 08030

Mailing Address: ERGON ASPHALT PARTNERS LP
PO BOX 31
GLOUCESTER CITY, NJ 08030

State Plane Coordinates:

X-Coordinate:	1,869,350
Y-Coordinate:	386,350
Units:	UTM Zone 18N - Meters
Datum:	NAD83
Source Org.:	Submittal Document
Source Type:	Other/Unknown

County: Camden

Location Description: Facility located on the Delaware River approximately 1/2 mile south of the Walt Whitman Bridge.

Industry:

Primary SIC:	2951
Secondary SIC:	5171
NAICS:	324121

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: ERGON ASPHALT PARTNERS LP
Org. Type: LP
Name: KATELAN CRAIN
NJ EIN: 00261600597
Title: ENV ENGINEER
Phone: (601) 933-3122 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: KATELAN.CRAIN@ERGON.COM
Mailing Address: ERGON ASPHALT PARTNERS LP
PO BOX 1639
JACKSON, MS 39215

Contact Type: Emission Statements

Organization: ERGON ASPHALT PARTNERS LP
Org. Type: LP
Name: Ronald Shiver
NJ EIN: 00261600597
Title: EHS Compliance Manager
Phone: (267) 460-8839 x
Fax: (856) 456-3331 x
Other: (512) 751-0969 x
Type: Mobile
Email: Ron.Shiver@ergon.com
Mailing Address: ERGON ASPHALT PARTNERS LP
P.O. Box 31
Gloucester City, NJ 08030

Contact Type: Fees/Billing Contact

Organization: ERGON ASPHALT PARTNERS LP
Org. Type: LP
Name: KATELAN CRAIN
NJ EIN: 00261600597
Title: ENV ENGINEER
Phone: (601) 933-3122 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: KATELAN.CRAIN@ERGON.COM
Mailing Address: ERGON ASPHALT PARTNERS LP
PO BOX 1639
JACKSON, MS 39215

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: On-Site Manager

Organization: ERGON ASPHALT PARTNERS LP
Org. Type: LP
Name: Kevin Hanson
NJ EIN: 00261600597
Title: Facility Manager
Phone: (856) 456-6673 x
Fax: (856) 456-3331 x
Other: (609) 504-3640 x
Type: Mobile
Email: kevin.hanson@ergon.com
Mailing Address: ERGON ASPHALT PARTNERS LP
P.O. Box 31
Gloucester City, NJ 08030

Contact Type: Owner (Current Primary)

Organization: ERGON ASPHALT PARTNERS LP
Org. Type: LP
Name: Kevin Hanson
NJ EIN: 00261600597
Title: Facility Manager
Phone: (856) 456-6673 x
Fax: (856) 456-3331 x
Other: (609) 504-3640 x
Type: Mobile
Email: kevin.hanson@ergon.com
Mailing Address: ERGON ASPHALT PARTNERS LP
P.O. Box 31
Gloucester City, NJ 08030

Contact Type: Responsible Official

Organization: ERGON ASPHAL PARTNERS LP
Org. Type: LP
Name: RAMON L CALLAHAN JR
NJ EIN: 00261600597
Title: VP OF EHS
Phone: (913) 744-4919 x
Fax: ( ) - x
Other: ( ) - x
Type:
Email: RAMON.CALLAHAN@ERGON.COM
Mailing Address: ERGON ASPHAL PARTNERS LP
PO BOX 1639
JACKSON, MS 39215

ERGON ASPHALT PARTNERS LP (50519) Date: 9/6/2024

New Jersey Department of Environmental Protection
Facility Profile (Permitting)

1. Is this facility classified as a small business by the USEPA?	No
2. Is this facility subject to N.J.A.C. 7:27-22?	No
3. Are you voluntarily subjecting this facility to the requirements of Subchapter 22?	No
4. Has a copy of this application been sent to the USEPA?	No
5. If not, has the EPA waived the requirement?	
6. Are you claiming any portion of this application to be confidential?	No
7. Is the facility an existing major facility?	No
8. Have you submitted a netting analysis?	No
9. Are emissions of any pollutant above the SOTA threshold?	No
10. Have you submitted a SOTA analysis?	

11. If you answered "Yes" to Question 9 and "No" to Question 10, explain why a SOTA analysis was not required

12. Have you provided, or are you planning to provide air contaminant modeling?

ERGON ASPHALT PARTNERS LP (50519) Date: 9/6/2024

New Jersey Department of Environmental Protection
Equipment Inventory

Equip. NJID	Facility's Designation	Equipment Description	Equipment Type	Certificate Number	Install Date	Grand-Fathered	Last Mod. (Since 1968)	Equip. Set ID
E162	Tank 162	PMAC Storage	Storage Vessel		10/1/2024	No		

ERGON ASPHALT PARTNERS LP (50519) Date: 9/6/2024

New Jersey Department of Environmental Protection
Control Device Inventory

CD NJID	Facility's Designation	Description	CD Type	Install Date	Grand-Fathered	Last Mod. (Since 1968)	CD Set ID
CD3	PMAC Demist	PMAC Demister	Particulate Filter (Other)				
CD9	Ecosorb	Ecosorb System	Adsorber				
CD41	Mtarri 1	PMAC Odor Abatement system	Adsorber				
CD42	Mtarri 2	PMAC Odor Abatement system	Adsorber				
CD43	Mtarri 3	PMAC Odor Abatement system	Adsorber				
CD44	Mtarri 4	PMAC Odor Abatement system	Adsorber				
CD51	PMACPolish1	PMAC polishing filter	Adsorber				
CD52	PMACPolish2	PMAC polishing filter	Adsorber				
CD53	PMACPolish3	PMAC polishing filter	Adsorber				
CD54	PMACPolish4	PMAC polishing filter	Adsorber				

ERGON ASPHALT PARTNERS LP (50519)

Date: 9/6/2024

New Jersey Department of Environmental Protection
Emission Points Inventory

PT NJID	Facility's Designation	Description	Config.	Equiv. Diam. (in.)	Height (ft.)	Dist. to Prop. Line (ft)	Exhaust Temp. (deg. F)			Exhaust Vol. (acfm)			Discharge Direction	PT Set ID
							Avg.	Min.	Max.	Avg.	Min.	Max.		
PT13001	PT13001	Control Device System Exhaust 1	Round	12	15	170	130.0			2,500.0			Up	
PT13002	PT13002	Control Device System Exhaust 2	Round	12	15	170	130.0			2,500.0			Up	
PT13003	PT13003	Control Device System Exhaust 3	Round	12	15	170	130.0			2,500.0			Up	
PT13004	PT13004	Control Device System Exhaust 4	Round	12	15	170	130.0			2,500.0			Up	

ERGON ASPHALT PARTNERS LP (50519)

Date: 9/6/2024

New Jersey Department of Environmental Protection
Emission Unit/Batch Process Inventory

U 1 U1 Process & Storage Equipment

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours Min.	Annual Oper. Hours Max.	VOC Range	Flow (acfm) Min.	Flow (acfm) Max.	Temp. (deg F) Min.	Temp. (deg F) Max.
OS162	Tank 162	PMAC storage	Normal - Steady State	E162	CD3 (P) CD41 (T) CD42 (T) CD43 (T) CD44 (T) CD51 (T) CD52 (T) CD53 (T) CD54 (T) CD9 (S)	PT13001 PT13002 PT13003 PT13004	4-04-003-14	0.0	8,760.0	B	0.0	100.0	50.0	410.0

50519 ERGON ASPHALT PARTNERS LP Date: 9/6/2024

New Jersey Department of Environmental Protection
Potential to Emit

Subject Item: **U1 U1**

Operating Scenario: **OS162**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
Formaldehyde		0.01040000	0.01040000	0.01040000	lb/hr	No
Formaldehyde		0.00290000	0.00290000	0.00290000	tons/yr	No
VOC (Total)		1.51000000	1.51000000	1.51000000	lb/hr	No

000000 E162 (Storage Vessel)
Print Date: 9/6/2024

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	175,035
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	Yes
Shell Color:	Other
Description (if other):	Tan
Shell Condition:	Light Rust
Paint Condition:	Good
Shell Construction:	Welded
Is the Shell Insulated?	Yes
Type of Insulation:	FIberglass
Insulation Thickess (in):	4.0
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	40.00
Length (ft):	
Width (ft):	
Diameter (ft):	28.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	600.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	
Roof Construction:	
Primary Seal Type:	
Secondary Seal Type:	
Total Number of Seals:	
Roof Support:	
Does the storage vessel have a Vapor Return Loop?	No

000000 E162 (Storage Vessel)
Print Date: 9/6/2024

Does the storage vessel have a Conservation Vent?	No
Have you attached a diagram showing the location and/or the configuration of this equipment?	No
Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?	No
Comments:	

000000 CD42 (Adsorber)
Print Date: 9/6/2024

Make:	
Manufacturer:	Mtarri Varani, LLC
Model:	Mtarri Odor Control
Adsorber Type:	O1
Description:	Odor Control Unit
Maximum Gas Flow Rate to Adsorber (acfm):	6000.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	150.00
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Iron sponge media or equivalent
Bed Height:	10.00
Bed Length:	8.00
Bed Width:	16.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	Parallel

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☑
Sampling Frequency:	
Sampling Device:	H2S Detector
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	10.00
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD42 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	10
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Odor to be detected if not operated properly
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	

000000 CD43 (Adsorber)
Print Date: 9/6/2024

Make:	
Manufacturer:	Mtarri Varani, LLC
Model:	Mtarri Odor Control
Adsorber Type:	O1
Description:	Odor Control Unit
Maximum Gas Flow Rate to Adsorber (acfm):	6000.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	150.00
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Iron sponge media or equivalent
Bed Height:	10.00
Bed Length:	8.00
Bed Width:	16.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	Parallel

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☑
Sampling Frequency:	
Sampling Device:	H2S Detector
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	10.00
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD43 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	10
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Odor to be detected if not operated properly
Have you attached data from recent performance testing?	◯ Yes ◉ No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	◯ Yes ◉ No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	◯ Yes ◉ No
Comments:	

000000 CD44 (Adsorber)
Print Date: 9/6/2024

Make:	
Manufacturer:	Mtarri Varani, LLC
Model:	Mtarri Odor Control
Adsorber Type:	O1
Description:	Odor Control Unit
Maximum Gas Flow Rate to Adsorber (acfm):	6000.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	150.00
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Iron sponge media or equivalent
Bed Height:	10.00
Bed Length:	8.00
Bed Width:	16.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	Parallel

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☑
Sampling Frequency:	
Sampling Device:	H2S Detector
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	10.00
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD44 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	10
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Odor to be detected if not operated properly
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	○ Yes ● No
Comments:	

000000 CD51 (Adsorber)
Print Date: 9/6/2024

Make:	Carbon Steel Vessel
Manufacturer:	TetraSolve
Model:	VF-3000 (or equivalent)
Adsorber Type:	FN
Description:	
Maximum Gas Flow Rate to Adsorber (acfm):	1500.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Carbon (coconut shell based or equivalent
Bed Height:	6.50
Bed Length:	6.00
Bed Width:	4.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	2500.0
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☐
Sampling Frequency:	
Sampling Device:	
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD51 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Visual inspection
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	● Yes ○ No
Comments:	

000000 CD52 (Adsorber)
Print Date: 9/6/2024

Make:	Carbon Steel Vessel
Manufacturer:	TetraSolve
Model:	VF-3000 (or equivalent)
Adsorber Type:	FN
Description:	
Maximum Gas Flow Rate to Adsorber (acfm):	1500.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Carbon (coconut shell based or equivalent
Bed Height:	6.50
Bed Length:	6.00
Bed Width:	4.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	2500.0
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☐
Sampling Frequency:	
Sampling Device:	
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD52 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Visual inspection
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	● Yes ○ No
Comments:	

000000 CD53 (Adsorber)
Print Date: 9/6/2024

Make:	Carbon Steel Vessel
Manufacturer:	TetraSolve
Model:	VF-3000 (or equivalent)
Adsorber Type:	FN
Description:	
Maximum Gas Flow Rate to Adsorber (acfm):	1500.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Carbon (coconut shell based or equivalent
Bed Height:	6.50
Bed Length:	6.00
Bed Width:	4.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	2500.0
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☐
Sampling Frequency:	
Sampling Device:	
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD53 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Visual inspection
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	● Yes ○ No
Comments:	

000000 CD54 (Adsorber)
Print Date: 9/6/2024

Make:	Carbon Steel Vessel
Manufacturer:	TetraSolve
Model:	VF-3000 (or equivalent)
Adsorber Type:	FN
Description:	
Maximum Gas Flow Rate to Adsorber (acfm):	1500.0
Maximum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Temperature of Vapor Stream to Adsorber (°F):	
Minimum Moisture Content of Vapor Stream to Adsorber (%):	
Type of Adsorbant:	Carbon (coconut shell based or equivalent
Bed Height:	6.50
Bed Length:	6.00
Bed Width:	4.00
Units:	Feet
Other Bed Dimension:	
Value:	
Units:	
Minimum Pressure Drop Across Adsorbant (in. H20):	
Maximum Pressure Drop Across Adsorber (in. H20):	
Total Weight of Adsorbant (lbs):	2500.0
Total Weight of Adsorbant When Saturated (lbs):	
Maximum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Minimum Adsorbant Capacity (lbs Adsorbate/lbs Adsorbant):	
Set-up Type:	

Method of Determining Breakthrough (check all that apply):

Continuous Emissions Monitor (CEM):	☐
Replacement By Weight:	☐
Periodic Testing:	☐
Sampling Frequency:	
Sampling Device:	
Other:	☐
Description:	
Minimum Concentration at Breakthrough (ppmvd):	
Handling Method of Saturated Adsorbant:	Disposed of off-site
Method of Regeneration:	

000000 CD54 (Adsorber)
Print Date: 9/6/2024

Maximum Number of Sources Using this Apparatus as a Control Device (Include Permitted and Non-Permitted Sources):	
Alternative Method to Demonstrate Control Apparatus is Operating Properly:	Visual inspection
Have you attached data from recent performance testing?	○ Yes ● No
Have you attached any manufacturer's data or specifications in support of the feasibility and/or effectiveness of this control apparatus?	○ Yes ● No
Have you attached a diagram showing the location and/or configuration of this control apparatus?	● Yes ○ No
Comments:	

50519 ERGON ASPHALT PARTNERS LP PCP000000 U1 OS162 (Efficiency Table - CD9)
Print Date: 9/6/2024

Pollutant Category	Capture Efficiency (%)	Removal Efficiency (%)	Overall Efficiency (%)
CO			
HAP (Total)			
NOx			
Other (Total)			
Pb			
PM-10			
PM-2.5			
SO2			
TSP			
VOC (Total)			

50519 ERGON ASPHALT PARTNERS LP PCP000000 U1 OS162 (Efficiency Table - CD42)
Print Date: 9/6/2024

Pollutant Category	Capture Efficiency (%)	Removal Efficiency (%)	Overall Efficiency (%)
CO			
HAP (Total)			
NOx			
Other (Total)			
Pb			
PM-10			
PM-2.5			
SO2			
TSP			
VOC (Total)			

50519 ERGON ASPHALT PARTNERS LP PCP000000 U1 OS162 (Efficiency Table - CD44)
Print Date: 9/6/2024

Pollutant Category	Capture Efficiency (%)	Removal Efficiency (%)	Overall Efficiency (%)
CO			
HAP (Total)			
NOx			
Other (Total)			
Pb			
PM-10			
PM-2.5			
SO2			
TSP			
VOC (Total)			

50519 ERGON ASPHALT PARTNERS LP PCP000000 U1 OS162 (Efficiency Table - CD52)
Print Date: 9/6/2024

Pollutant Category	Capture Efficiency (%)	Removal Efficiency (%)	Overall Efficiency (%)
CO			
HAP (Total)			
NOx			
Other (Total)			
Pb			
PM-10			
PM-2.5			
SO2			
TSP			
VOC (Total)			

50519 ERGON ASPHALT PARTNERS LP PCP000000 U1 OS162 (Efficiency Table - CD54)
Print Date: 9/6/2024

Pollutant Category	Capture Efficiency (%)	Removal Efficiency (%)	Overall Efficiency (%)
HAP (Total)			
NOx			
Other (Total)			
Pb			
PM-10			
PM-2.5			
SO2			
TSP			
VOC (Total)			
CO			

ERGON
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September 6, 2024

NJDEP - Air Quality Permitting and Planning
Bureau of Stationary Sources
Preconstruction Permits Section
401 E. State Street, 2nd floor, P.O. Box 420,
Mail Code 401-02
Trenton, NJ 08625-0420

Re: Subchapter 8 Permit Modification
Ergon Asphalt Partners LP Gloucester City, NJ (Facility ID 50519)

Dear Sir/Madam,

This application is for a modification of Subchapter 8 permit (PCP230002) for our Gloucester City, New Jersey facility. Ergon Asphalt Partners LP (Ergon) operates a liquid asphalt cement terminal and storage facility in Gloucester City, New Jersey (Facility ID 50519). Incoming base asphalt is received by truck, ship or barge and stored in heated storage tanks at the facility. Depending upon the type of asphalt product desired, polymer materials and other additives may be blended with the base asphalt. Asphalt material is shipped from the terminal either via truck or barge.

Permit PCP230002 was for installation of a new storage tank, designated as Tank 162. Tank 162 will be used for storage of grades/types of asphalt that have processed on site by blending asphalt mix with various additives (primarily polymer) to create various grades/type of asphalt, depending upon the physical characteristics required. Tank 162 has not yet been installed.

After issuance of the permit, there were some modifications of the tank design, resulting in a larger diameter and larger capacity tank. This results in a slight increase in potential annual emission rates and maximum hourly emission rates from tank filling operations. There is no change in the maximum annual throughput, currently limited to 20 million gallons per year.

Total VOC emissions from the storage tank were estimated based on calculation methodology for storage tanks identified in AP-42 Section 7.1 “Organic Liquid Storage Tanks” revised March 2020. The revised potential annual VOC emissions from Tank 162 remain less than 5 tons per year. Thus, the proposed tank is not subject to the SOTA requirements.

HAP emissions were estimated based on speciation data for asphalt storage identified in Table 11.1-5 in AP-42 Section 11.1 “Hot Mix Asphalt Plants.” Organic PAH/POM PM emissions were estimated at 2.08% of VOC emissions. The PAH/POM emissions are assumed to be controlled by at least 90% from the PMAC Demister (CD3), that is part of the odor control system for Emission Unit U1. The minimum 90% control is based on manufacturer’s design specifications for demister system of approximately 99.7% removal.

Table 1 provides the backup revised calculations for the potential total VOC emissions from Tank 162. Table 2 provides a breakdown of the revised potential HAP emissions from Tank 162. Formaldehyde remains as the

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Gloucester City, NJ 08030
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only HAP emission that exceeds the reporting threshold rates identified in N.J.A.C. 7-27-17.9 at 5.85 pounds per year.

Maximum hourly TXS emission rates from Tank 162 were determined based on a maximum filling rate of 600 gallons per minute. As shown in Table 2, there are no TXS emissions over 0.01 lbs/hour.

The NJDEP Division of Air Quality Risk Screening Worksheet for Long-Term Carcinogenic and Non-carcinogenic Effects and Short-Term Effects was completed for the reportable formaldehyde emissions. The Risk Screening Worksheet only applies for a single stack. Therefore, the worksheet was completed assuming the emissions from Tank 162 were exhausted from a single stack.

Long-term incremental risk (IR) and hazard quotient (HQ) for formaldehyde were determined based on potential annual emissions from Tank 162. The IR was determined to be 6.7 x 10-7, below the Department's acceptable criteria of 1 x 10-6. Thus, the IR is within the Department's acceptable criteria of 1 x 10-6. The HQ is below 1, the Department's acceptable criteria for HQ.

Short-term hazard quotient (HQst) was determined for formaldehyde based on a maximum hourly emission rate from the maximum tank filling rate of 600 gallons per minute. The HQst is below 1, the Department's acceptable criteria for HQst.

The IR, HQ and the HQst for formaldehyde were determined to be below the Department's acceptable criteria. Therefore, the Risk Screening Worksheet (attached) demonstrates that the proposed HAP emissions from Tank 162 will result in negligible risk.

The New Source Performance Standards (NSPS) Subpart Kb establishes standards of performance for Volatile Organic Liquid Storage Vessels constructed, reconstructed, or modified after July 23, 1984. The provisions of 40 CFR 110b(b) exempts storage vessels storing liquids with a maximum true vapor pressure less than 3.5 kilopascals (kPa). The maximum estimated true vapor pressure for the materials stored in Tank 162 is less than 0.12 psia (< 0.83 kPa). Therefore, Tank 162 is not subject to the NSPS Subpart Kb requirements.

We would be pleased to answer any questions about the applications. Please contact me at (267) 460-8839 or Mr. Randall Abbuhl at Weston Solutions, Inc. at 732-417-5810. Also, we request the opportunity to discuss any permit conditions with you prior to their issuance.

Sincerely,
Ergon Asphalt Partners LP

Ronald Shiver
EHS Compliance Manager

cc: K. Hanson, Ergon
R. Abbuhl, Weston

TABLE 1
U1 OS10162 TANK 162 AIR EMISSION ESTIMATIONS (rev SEP 2024)
ERGON ASPHALT PARTNERS LP GLOUCESTER CITY, NJ
US EPA Formulas from AP-42*

	U1, OS162
Tank Identification	**Tank 162**
Contents of Tank	AC
Tank Type (Vertical or Horizontal)	Vertical
Heated (Yes or No)	Yes
Diameter, ft	28.0
Effective Diameter, ft	28.0
Shell Height or Length, ft	40.0
Nominal Capacity, gal	168,000.0
Geometric Capacity, gal	175,035
Max Permitted Throughput, gallons/yr	20,000,000
Average Liquid Height, ft (def. = Shell Height/2)	29.00
Maximum Liquid Height, ft (def. = Shell Height)	38.0
Roof Type (Cone or Dome)	Cone
Tank Roof Cone Slope, ft/ft (def. = 0.0625)	0.0625
Dome Tank Roof Radius, ft (def. = shell diameter)	N/A
Dome Tank Roof Height, ft	N/A
Roof Outage, ft	0.292
Vapor Space Outage, ft	11.29
Vapor Space Volume, ft^3	6953
Daily Minimum Liquid Temperature, F	300
Daily Maximum Liquid Temperature, F	410
Daily Average Liquid Temperature, F	355
Daily Total Solar Insulation Factor, $Btu/ft^2/day$	1261
Tank Paint Solar Absorbence, dimensionless	0.250
Daily Vapor Temperature Range, R	0.0
Daily Average Liquid Surf. Temperature, F	355.0
Daily Minimum Liquid Surf. Temperature, F	300.0
Daily Maximum Liquid Surf. Temperature, F	410.0
Liquid Bulk Temperature	355.0
Type of Substance (Organic or Petroleum)	ORGANIC
Vapor Molecular Weight, lb/lbmol	105.0
Antoine's Coefficient A	75350.0600
Antoine's Coefficient B	9.0035
Antoine's Coefficient C	0.0000
Vapor Pressure at Avg. Liq. Surf. Temp., psia	0.03904
Vapor Pressure at Min. Liquid Surf. Temp., psia	0.0092
Vapor Pressure at Max. Liquid Surf. Temp., psia	0.1386
Vapor Density, lb/ft^3	0.00047
Daily Vapor Pressure range, psi	0.1294
Breather Vent Pressure Setting, psig (def. = 0.03) Heated & Open Vent Tanks (Pbp = 0.0)	0.0000
Breather Vent Vacuum Setting, psig (def. = -0.03) Heated & Open Vent Tanks (Pbp = 0.0)	0.0000
Breather Vent Pressure Setting Range, psi	0.0000
Ambient Pressure, psia (def. = 14.7)	14.7
Vapor Space Expansion Factor	0.0088
Vented Vapor Saturation Factor	0.977
Maximum Fill Rate (gpm)	600.0
Annual Turnovers	114.3
Turnover Factor	0.43
Working Loss Product Factor (def.=1)	1.00
Standing Storage Loss, lbs/yr	**10.24**
Working Loss, lbs/yr	**837.76**
Total Losses, lbs/yr	**848.00**
Total Losses, tons/yr	**0.42**

TABLE 2
TANK 162 HAP AIR EMISSION ESTIMATIONS (rev SEPTEMBER 2024)
ERGON ASPHALT PARTNERS LP, GLOUCESTER CITY, NJ
U1, OS162

Speciation Profile for Asphalt Storage Tanks[1]		Emission Rate		Subchapter 17 Reporting Threshold
		lbs/year	lbs/hour (max)[2]	lb/year
2-Butanone	0.039%	0.33	0.0006	ND
Benzene	0.032%	0.27	0.0005	6
Bromomethane	0.0049%	0.04	0.0001	230
Carbon Disulfide	0.016%	0.14	0.0002	2000
Chloroethane	0.004%	0.03	0.0001	2000
Chloromethane	0.023%	0.20	0.0003	25
Ethylbenzene	0.038%	0.32	0.0006	19
Formaldehyde	0.69%	5.85	0.0104	3.5
Hexane	0.10%	0.85	0.0015	ND
Isooctane	0.000%	0.00	0.0000	1000
Methylene Chloride	0.00027%	0.00	0.0000	2000
Styrene	0.0054%	0.05	0.0001	80
Toluene	0.062%	0.53	0.0009	2000
Xylene (m & p)	0.20%	1.70	0.0030	2000
Xylene (o)	0.057%	0.48	0.0009	2000
Federal HAPs - PAH[3]	**Compound/ Organic PM**			
2-Methylnaphthalene	5.270%	0.09	0.0795	ND
Acenaphthene	0.470%	0.01	0.0071	ND
Acenaphthylene	0.014%	0.000	0.0002	ND
Anthracene	0.130%	0.00	0.0020	ND
Benzo(a)anthracene	0.056%	0.00	0.0008	0.4
Benzo(e)pyrene	0.010%	0.000	0.0001	ND
Chrysene	0.210%	0.00	0.0032	2.0
Fluoranthene	0.150%	0.00	0.0023	ND
Fluorene	1.010%	0.02	0.0152	ND
Naphthalene	1.82%	0.03	0.0274	1.4
Perylene	0.03%	0.00	0.0005	ND
Phenanthrene	1.80%	0.03	0.0271	ND
Pyrene	0.44%	0.01	0.0066	ND
Total POM	11.41%	0.20	0.1721	2.0

[1]Speciation Profile based on Table 11.1-15, Hot Mix Asphalt Plants, Section 11.1, AP-42 Fifth Edition (Section 11 April 2004 update).

[2]Hourly emission rates based on maximum hourly filling rate of 600 gpm:

[3]Assumes Organic PM is 2.08% of Total VOC and controlled by 90% from demister

600 gpm maximum fill rate
20,000,000 gallons/year
556 hours/year filling
838 lbs/year VOC, working losses
1.51 lbs/hour VOC working losses

NJDEP DIVISION OF AIR QUALITY RISK SCREENING WORKSHEET
For Long-Term Carcinogenic and Noncarcinogenic Effects and Short-Term Effects

April 2023

Read the Instructions tab carefully before completing this spreadsheet.

Date	9/6/2024
Facility ID No.	50519
Activity ID No.	
Facility name	Ergon Aphalt Partners LP
Facility location	Gloucester City, NJ
File name (.xls)	

Emission Unit/Batch Process ID No.	U1	Stack height[1]	15.0 ft
Emission Point ID No.	130001	Distance to property line	170 ft
Equipment ID No(s).	E162	**Annual air impact value, C'**	17.7361 **(ug/m³)/(ton/yr)**
Operating Scenario(s)	OS162	**1-hour air impact value, C'st**	1753.94 **(ug/m³)/(lb/hr)**

KEY:

Long-Term Effects

- **Q =** Annual emission rate (in tons per year) contributed from the source
- **C =** C' x Q = Annual average ambient air concentration
- **URF =** Unit risk factor (for carcinogenic risk)
- **IR =** C x URF = Incremental risk (for carcinogen)
- **RfC =** Reference concentration (for noncarcinogenic effects)
- **HQ =** C/RfC = Hazard quotient (for noncarcinogenic risk)
- **RsIt =** The result of comparing the IR or HQ to the negligible threshold (FER if > threshold, Negl. if <= threshold)
- **FER =** Further Evaluation Required (See Notes for thresholds)
- **Negl. =** Negligible (See Notes for thresholds)

Short-Term Effects

- **Q_h =** Hourly emission rate (in pounds per hour)
- **C_{st} =** C'_{st} x Q_h = Short-term average ambient air concentration
- **RfC_{st} =** Short-term reference concentration (for noncarcinogenic effects)
- **HQ_{st} =** C_{st}/RfC_{st} = Hazard quotient for short-term noncarcinogenic effects
- **RsIt =** The result of comparing the HQ_{st} to the negligible threshold (FER if > threshold, Negl. if <= threshold)
- **FER =** Further Evaluation Required (See Notes for thresholds)
- **Negl. =** Negligible (See Notes for thresholds)

[1] When evaluating risk for diesel engines, use the equivalent stack height consistent with the memo dated June 10, 2009.
Click here to view the "Stack Height Equivalents for Use in First Level Screening Analyses for Diesel Engines" memo.

				LONG-TERM EFFECTS									SHORT-TERM EFFECTS				
	HAP	CAS No.	Air Toxic	Q (ton/yr)	C (ug/m³)	URF [(ug/m³)⁻¹]	IR	RsIt	RfC (ug/m³)	HQ	RsIt	Q_h (lb/hr)	C_{st} (ug/m³)	RfC_{st} (ug/m³)	HQ_{st}	RsIt
1	*	75070	Acetaldehyde			2.2E-06			9					470		
2	*	60355	Acetamide			2.0E-05										
3		67641	Acetone						31000					62000		
4		75865	Acetone cyanohydrin						2							
5	*	75058	Acetonitrile						60							
6	*	98862	Acetophenone						0.02							
7	*	53963	Acetylaminofluorene (2-)			1.3E-03										
8	*	107028	Acrolein						0.02					2.5		
9	*	79061	Acrylamide			1.0E-04			6							
10	*	79107	Acrylic acid						1					6000		
11	*	107131	Acrylonitrile			6.8E-05			2							
12		309002	Aldrin			4.9E-03										
13	*	107051	Allyl chloride			6.0E-06			1							
14		117793	Aminoanthraquinone (2-)			9.4E-06										
15	*	92671	Aminobiphenyl (4-)			6.0E-03										
16		7664417	Ammonia						100					3200		
17	*	62533	Aniline			1.6E-06			1					3000		
18	*	90040	Anisidine (o-)			4.0E-05										
19	**	1309644	Antimony trioxide						0.2							
20		140578	Aramite			7.1E-06										
21	*		Arsenic (inorganic)			4.3E-03			0.015					0.2		
22	**	7784421	Arsine						0.05							
23	*	1332214	Asbestos			7.7E-03										
24		103333	Azobenzene			3.1E-05										
25			Barium											0.5		
26	*	71432	Benzene			7.8E-06			3					27		
27	*	92875	Benzidine			6.7E-02										
28	**	50328	Benzo(a)pyrene			6.0E-04			0.002							
29	*	98077	Benzotrichloride			3.7E-03										
30	*	100447	Benzyl chloride			4.9E-05								240		
31	*		Beryllium			2.4E-03			0.02							
32	*	92524	Biphenyl (1,1-)						0.4							
33		108601	Bis(2-chloroisopropyl)ether			1.0E-05										
34	*	117817	Bis(2-ethylhexyl)phthalate			2.4E-06										
35	*	542881	Bis(chloromethyl)ether			6.2E-02										
36		7440428	Boron (elemental)						20							
37		7637072	Boron trifluoride						0.7							
38		74975	Bromochloromethane						40							
39		75274	Bromodichloromethane			3.7E-05										
40	*	75252	Bromoform			1.1E-06										
41		106945	Bromopropane (1-)						101					5030		
42	*	106990	Butadiene (1,3-)			3.0E-05			2					660		
43	*		Cadmium			4.2E-03			0.02							
44		105602	Caprolactam						2.2					50		
45	*	133062	Captan			6.6E-07										
46	*	75150	Carbon disulfide						700					6200		
47	*	56235	Carbon tetrachloride			6.0E-06			40					1900		
48	*	463581	Carbonyl sulfide						10					660		
49	*	57749	Chlordane			1.0E-04			0.02							
50		108171262	Chlorinated paraffins			2.0E-05										
51	*	7782505	Chlorine						0.2					210		
52		10049044	Chlorine dioxide						0.2					28		
53		75683	Chloro-1,1-difluoroethane (1-) *(HCFC-142b)*						50000							
54	*	532274	Chloroacetophenone (2-)						0.03							
55	*	108907	Chlorobenzene						1000							
56	*	510156	Chlorobenzilate			3.1E-05										
57		75456	Chlorodifluoromethane *(HCFC-22)*						50000							
58	*	67663	Chloroform			2.3E-05			300					150		
59	*	107302	Chloromethyl methyl ether			6.9E-04										
60		95830	Chloro-o-phenylenediamine (4-)			4.6E-06										
61		95692	Chloro-o-toluidine (p-)			7.7E-05										
62		76062	Chloropicrin						0.4					29		
63	*	126998	Chloroprene			5.0E-04			20							
64		75296	Chloropropane (2-)						100							
65	**		Chromic acid mists (Cr VI)						0.008							
66	**	18540299	Chromium VI (total)			1.2E-02										
67	**		Chromium VI dissolved aerosols						0.008							
68	**		Chromium VI particulates						0.1							
69	*		Cobalt			7.7E-03			0.006							
70	*	8007452	Coke oven emissions			6.2E-04										
71			Copper											100		
72		120718	Cresidine (p-)			4.3E-05										
73	*		Cresol mixtures						600							
74		98828	Cumene						400							
75		135206	Cupferron			6.3E-05										
76		110827	Cyclohexane											6000		
77	*	72559	DDE			9.7E-05										

78		50293	DDT			9.7E-05											
79		615054	Diaminoanisole (2,4-)			6.6E-06											
80		124481	Dibromochloromethane			2.7E-05											
81	*	96128	Dibromo-3-chloropropane (1,2-)			2.0E-03			0.2								
82		764410	Dichloro-2-butene (1,4-)			4.2E-03											
83		95501	Dichlorobenzene (1,2-)						200								
84	*	106467	Dichlorobenzene (1,4-)			1.1E-05			800								
85	*	91941	Dichlorobenzidine (3,3'-)			3.4E-04											
86		75718	Dichlorodifluoromethane						100								
87	*	111444	Dichloroethyl ether			3.3E-04											
88	*	542756	Dichloropropene (1,3-)			4.0E-06			20								
89	*	62737	Dichlorvos			8.3E-05			0.5								
90		77736	Dicyclopentadiene						0.3								
91		60571	Dieldrin			4.6E-03											
92			Diesel particulate matter			3.0E-04			5								
93	*	111422	Diethanolamine						3								
94		112345	Diethylene glycol monobutyl ether						0.1								
95		75376	Difluoroethane (1,1-)						40000								
96	*	77781	Dimethyl sulfate			4.0E-03											
97	*	60117	Dimethylaminoazobenzene (4-)			1.3E-03											
98	*	79447	Dimethylcarbamyl chloride			3.7E-03											
99	*	68122	Dimethylformamide (N,N-)						30								
100	*	57147	Dimethylhydrazine (1,1-)						0.002								
101		540738	Dimethylhydrazine (1,2-)			1.6E-01											
102	*	121142	Dinitrotoluene (2,4-)			8.9E-05											
103	*	123911	Dioxane (1,4-)			5.0E-06			30						3000		
104	*		Dioxin	See footnote "a"													
105	*	122667	Diphenylhydrazine (1,2-)			2.2E-04											
106	*	106898	Epichlorohydrin			1.2E-06			1						1300		
107	*	106887	Epoxybutane (1,2-)						20								
108	*	140885	Ethyl acrylate						8								
109	*	100414	Ethylbenzene			2.5E-06									1000		
110	*	51796	Ethyl carbamate			2.9E-04											
111	*	75003	Ethyl chloride												10000		
112	*	106934	Ethylene dibromide			6.0E-04			0.8								
113	*	107062	Ethylene dichloride			2.6E-05			400								
114	*	107211	Ethylene glycol						400								
115		111762	Ethylene glycol monobutyl ether						82						4700		
116	**	110805	Ethylene glycol monoethyl ether						200						370		
117	**	111159	Ethylene glycol monoethyl ether acetate						300						140		
118	**	109864	Ethylene glycol monomethyl ether						20						93		
119	**	110496	Ethylene glycol monomethyl ether acetate						90								
120	*	75218	Ethylene oxide			5.0E-03			30						42		
121	*	96457	Ethylene thiourea			1.3E-05											
122	*	151564	Ethyleneimine			1.9E-02											
123	*	75343	Ethylidene dichloride			1.6E-06			500								
124		16984488	Fluoride						13								
125	*	50000	Formaldehyde	2.9E-03	5.2E-02	1.3E-05	**6.7E-07**	**Negl.**	9	**5.8E-03**	**Negl.**	1.0E-02	18.2403	55	**3.3E-01**	**Negl.**	
126		98011	Furfural						50								
127			Gasoline vapors			1.0E-06			15								
128		111308	Glutaraldehyde						0.08						4.1		
129		765344	Glycidaldehyde						1								
130	*	76448	Heptachlor			1.3E-03											
131		1024573	Heptachlor epoxide			2.6E-03											
132	*	118741	Hexachlorobenzene			4.6E-04											
133	*	87683	Hexachlorobutadiene			2.2E-05											
134	**	319846	Hexachlorocyclohexane (alpha-)			1.8E-03											
135	**	319857	Hexachlorocyclohexane (beta-)			5.3E-04											
136	*	58899	Hexachlorocyclohexane (gamma-)			3.1E-04											
137	**	608731	Hexachlorocyclohexane (technical grade)			5.1E-04											
138	*	77474	Hexachlorocyclopentadiene						0.2								
139		19408743	Hexachlorodibenzo-p-dioxin, mixture			1.3E+00											
140	*	67721	Hexachloroethane			1.1E-05			30								
141	*	822060	Hexamethylene diisocyanate						0.03						0.3		
142	*	110543	Hexane (N-)						700								
143	*	302012	Hydrazine			4.9E-03			0.2						10		
144		10034932	Hydrazine sulfate			4.9E-03											
145	*	7647010	Hydrogen chloride						20						2100		
146	**	74908	Hydrogen cyanide						0.8						340		
147	*	7664393	Hydrogen fluoride						14						240		
148	**	7783075	Hydrogen selenide												5		
149		7783064	Hydrogen sulfide						2						98		
150	*	78591	Isophorone						2000								
151		67630	Isopropanol												3200		
152	*		Lead			1.2E-05									0.1		
153	*	108316	Maleic anhydride						0.7								
154	*		Manganese						0.05						0.17		
155	*		Mercury (elemental)						0.3								
156	*	7439976	Mercury (inorganic)						0.03						0.6		
157		126987	Methacrylonitrile						0.7								
158	*	67561	Methanol						4000						28000		
159	*	74839	Methyl bromide						5						31000		
160	*	74873	Methyl chloride			1.8E-06			90								
161	*	71556	Methyl chloroform						1000						9000		
162		78933	Methyl ethyl ketone						5000						13000		
163	*	108101	Methyl isobutyl ketone												3000		
164	*	624839	Methyl isocyanate						1								
165	*	80626	Methyl methacrylate						700								
166		25013154	Methyl styrene (mixed isomers)						40								
167	*	1634044	Methyl tert butyl ether			2.6E-07			3000								
168		108872	Methylcyclohexane						3000								
169	*	101144	Methylene bis(2-chloroaniline) (4,4'-)			4.3E-04											
170	*	75092	Methylene chloride			1.3E-08			600						14000		
171	*	101779	Methylenedianiline (4,4-)			4.6E-04			20								
172	*	101688	Methylenediphenyl diisocyanate (4,4'-)						1						12		
173	*	60344	Methylhydrazine			1.0E-03			0.02								
174		90948	Michler's ketone			2.5E-04											
175	*		Mineral fibers (<1% free silica)						24								
176	*	91203	Naphthalene			3.4E-05			3								
177	*		Nickel and compounds			4.8E-04			0.014						0.2		
178	**	1313991	Nickel oxide						0.02								
179	**		Nickel refinery dust			2.4E-04											
180	**		Nickel, soluble salts						0.2								
181	**	12035722	Nickel subsulfide			4.8E-04											
182		7697372	Nitric acid												86		
183		88744	Nitroaniline (o-)						0.05								
184	*	98953	Nitrobenzene			4.0E-05			9								
185	*	79469	Nitropropane (2-)			2.7E-03			20								
186		55185	Nitrosodiethylamine (N-)			4.3E-02											
187	*	62759	Nitrosodimethylamine (N-)			1.4E-02											
188		924163	Nitrosodi-n-butylamine (N-)			1.6E-03											
189		621647	Nitrosodi-n-propylamine (N-)			2.0E-03											
190		86306	Nitrosodiphenylamine (N-)			2.6E-06											

191		156105	Nitrosodiphenylamine (p-)			6.3E-06										
192		10595956	Nitrosomethylethylamine (N-)			6.3E-03										
193	*	59892	Nitrosomorpholine (N-)			1.9E-03										
194		759739	Nitroso-n-ethylurea (N-)			7.7E-03										
195	*	684935	Nitroso-n-methylurea (N-)			3.4E-02										
196		100754	Nitrosopiperidine (N-)			2.7E-03										
197		930552	Nitrosopyrrolidine (N-)			6.1E-04										
198	*	87865	Pentachlorophenol			5.1E-06										
199	*	108952	Phenol						200					5800		
200	*	75445	Phosgene						0.3					4		
201	*	7803512	Phosphine						0.3					70		
202	*	7664382	Phosphoric acid						10							
203	*		Phosphorus (white)						0.07							
204	*	85449	Phthalic anhydride						20							
205	*	1336363	Polychlorinated biphenyls (PCBs)			1.0E-04										
206	*		Polycylic aromatic hydrocarbons (PAHs)	See footnote "b"												
207	*		Polycylic organic matter (POM)													
208		7758012	Potassium bromate			1.4E-04										
209	*	1120714	Propane sultone (1,3-)			6.9E-04										
210	*	57578	Propiolactone (beta-)			4.0E-03										
211	*	123386	Propionaldehyde						8							
212		115071	Propylene						3000							
213	*	78875	Propylene dichloride			1.0E-05			4							
214		107982	Propylene glycol monomethyl ether						2000							
215	*	75569	Propylene oxide			3.7E-06			30					3100		
216	**		Selenium and compounds						20							
217		7631869	Silica (crystalline, respirable)						3							
218		1310732	Sodium hydroxide											8		
219	*	100425	Styrene			5.7E-07			1000					21000		
220	*	96093	Styrene oxide			4.6E-05										
221			Sulfates											120		
222		7664939	Sulfuric acid						1					120		
223	***	2699798	Sulfuryl fluoride						150					4170		
224	*	1746016	Tetrachlorodibenzo(p)dioxin (2,3,7,8-)			3.8E+01			0.00004							
225		630206	Tetrachloroethane (1,1,1,2-)			7.4E-06										
226	*	79345	Tetrachloroethane (1,1,2,2-)			5.8E-05										
227	*	127184	Tetrachloroethylene			6.1E-06			40					40		
228		811972	Tetrafluoroethane (1,1,1,2-)						80000							
229		109999	Tetrahydrofuran						2000							
230		62555	Thioacetamide			1.7E-03										
231	*	7550450	Titanium tetrachloride						0.1							
232	*	108883	Toluene						420					5000		
233	*	584849	Toluene diisocyanate (2,4-)			1.1E-05			0.02					0.07		
234	*	26471625	Toluene diisocyanate (2,4-/2,6-)			1.1E-05			0.02					0.07		
235	*	91087	Toluene diisocyanate (2,6-)			1.1E-05			0.02					0.07		
236	*	95807	Toluene-2,4-diamine			1.1E-03										
237	*	95534	Toluidine (o-)			5.1E-05										
238	*	8001352	Toxaphene			3.2E-04										
239		76131	Trichloro-1,2,2-trifluoroethane (1,1,2-)						30000							
240	*	120821	Trichlorobenzene (1,2,4-)						2							
241	*	79005	Trichloroethane (1,1,2-)			1.6E-05								200		
242	*	79016	Trichloroethylene			4.8E-06			2					2		
243		75694	Trichlorofluoromethane						700							
244	*	88062	Trichlorophenol (2,4,6-)			3.1E-06										
245	*	121448	Triethylamine						7					2800		
246	*	1582098	Trifluralin			2.2E-06										
247		526738	Trimethylbenzene (1,2,3-)						60							
248		95636	Trimethylbenzene (1,2,4-)						60							
249		108678	Trimethylbenzene (1,3,5-)						60							
250		25551137	Trimethylbenzene (1,2,3-/1,2,4-/1,3,5-)						60							
251		7440622	Vanadium						0.1					0.8		
252		1314621	Vanadium pentoxide											30		
253	*	108054	Vinyl acetate						200							
254	*	593602	Vinyl bromide			3.2E-05			3							
255	*	75014	Vinyl chloride			8.8E-06			100					180000		
256	*	75354	Vinylidene chloride						200							
257	*		Xylene (m-,o-,p-, or mixed isomers)						100					22000		

If any calculated long-term or short-term effects for an air toxic result in "Further Evaluation Required" (FER) on this Risk Screening Worksheet, a Refined Risk Assessment is required for that air toxic.

NOTE:

* **Clean Air Act hazardous air pollutant**

** **Clean Air Act hazardous air pollutant, but not listed individually (part of a group)**

*** **In addition to the Federally listed HAPs, the Department proposes to regulate hydrogen sulfide (H2S), 1-Bromopropane (1-BP), otherwise known as n-propyl bromide (n-PB), and sulfuryl fluoride, as State-specific hazardous air pollutants**

a Dioxins may be considered to be all 2,3,7,8-tetrachlorodibenzo(p)dioxin), or separated into congeners (contact AQEv).

b PAH or POM may be considered to be all benzo(a)pyrene, or separated into individual PAHs (contact AQEv).

The results are determined by comparing the long-term and short-term effects to the single-source thresholds, listed below.
The threshold value of negligible risk for incremental risk (IR) is 1 in a million (1.0E-06). An IR value less than or equal to 1 in million is considered negligible.
The threshold value of negligible risk for long-term hazard quotient (HQ) for non-carcinogenic risk is 1.0. An HQ less than or equal to 1.0 is considered negligible.
The threshold value of negligible risk for short-term hazard quotient (HQ_{st}) for non-carcinogenic risk is 1.0. An HQ_{st} less than or equal to 1.0 is considered negligible.