Benjamin Moore and Company, Inc. (05067)

Date: 2/13/2020

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: PCP **Number:** 150001

Description of Modifications: The exisitng permit needs to be modified to iincrease the size of 3 latex resin storage tanks (E10005, E10006 and E10007) from 6000 gal. to 10,575 gal. each. Since these tanks are inside, the emissions are dependent on the throughput and no increase in emissions will occur.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): Benjamin Moore and Company, Inc.

Facility ID (AIMS): 05067

Street Address: 134 LISTER AVE
NEWARK, NJ 07105

Mailing Address: 134 LISTER AVE
NEWARK, NJ 07105

State Plane Coordinates:

X-Coordinate:	573,100
Y-Coordinate:	4,510,000
Units:	Meters
Datum:	NAD27
Source Org.:	Other/Unknown
Source Type:	Other/Unknown

County: Essex

Location Description: Paint Manufacturing

Industry:

Primary SIC:	2851
Secondary SIC:	
NAICS:	

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Air Permit Information Contact**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Contact Type: **BAQE - Engineering**

Organization: BENJAMIN MOORE & CO.

Org. Type: Corporation

Name: Michael Peters

NJ EIN: 00263700001

Title: EHS SPECIALIST

Phone: (973) 252-2653 x

Fax: (973) 252-2659 x

Other: ( ) - x

Type:

Email: michael.peters@benjaminmoore.com

Mailing Address: 360 Route 206
PO Box 4000
FLANDERS, NJ 07836

Contact Type: **BAQE - Evaluation**

Organization: BENJAMIN MOORE & CO.

Org. Type: Corporation

Name: Michael Peters

NJ EIN: 00263700001

Title: EHS SPECIALIST

Phone: (973) 252-2653 x

Fax: (973) 252-2659 x

Other: ( ) - x

Type:

Email: michael.peters@benjaminmoore.com

Mailing Address: 360 Route 206
PO Box 4000
FLANDERS, NJ 07836

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Consultant**

Organization: Pleasant Hill Consultants, Inc.

Org. Type: Corporation

Name: Albert Arnofsky

NJ EIN:

Title: President

Phone: (973) 927-0346 x

Fax: (973) 927-9269 x

Other: (201) 826-0104 x

Type: Mobile

Email: albert@pleasanthillconsultants.com

Mailing Address: 34 Pleasant Hill Road
Succusanna, NJ 07876

Contact Type: **Emission Statements**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Contact Type: **Environmental Officer**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Fees/Billing Contact**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Contact Type: **General Contact**

Organization: Benjamin Moore & Company, Inc.

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EHS Specialist

Phone: (973) 344-1200 x5292

Mailing Address: 134 Lister Ave
Newark, NJ 07105

Fax: ( ) - x

Other: ( ) - x

Type:

Email: ron.defroscia@benjaminmoore.com

Contact Type: **On-Site Manager**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Regulation Officer**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Contact Type: **Responsible Official**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Contact Type: **Responsible Party**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Benjamin Moore and Company, Inc. (05067) Date: 2/13/2020

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?	No
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?	No
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?	No

Benjamin Moore and Company, Inc. (05067) Date: 2/13/2020

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
E10005	TK28/BLD4	Latex Resin Storage	Storage Vessel	PCP150001		No		
E10006	TK29/BLD4	Latex Resin Storage	Storage Vessel	PCP150001		No		
E10007	TK30/BLD4	Latex Resin Storage	Storage Vessel	PCP150001		No		

Benjamin Moore and Company, Inc. (05067)

Date: 2/13/2020

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.		
PT10005	TK28/BLD4	LATEX RESIN STORAGE	Round	6	22	68	75.0	70.0	80.0	1.0	0.0	2.0	Up	
PT10006	TK29/BLD4	LATEX RESIN STORAGE	Round	6	22	68	75.0	70.0	80.0	1.0	0.0	2.0	Up	
PT10007	TK30/BLD4	LATEX RESIN STORAGE	Round	6	22	70	75.0	70.0	80.0	1.0	0.0	2.0	Up	

Benjamin Moore and Company, Inc. (05067)

Date: 2/13/2020

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

U 27 TKS 4,4A, 17 Resin Tanks 4, 4a,17

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.
OS35	TK28/BLDG 4	80333 LATEX RESIN STORAGE TANKS	Normal - Steady State	E10005		PT10005	3-01-014-04	0.0	8,760.0	A	0.0	2.0	70.0	80.0
OS36	TK29/BLDG 4	80333 LATEX RESIN STORAGE TANKS	Normal - Steady State	E10005		PT10006	3-01-014-04	0.0	8,760.0	A	0.0	2.0	70.0	80.0
OS37	TK30/BLDG 4	80333 LATEX RESIN STORAGE TANKS	Normal - Steady State	E10005		PT10007	3-01-014-04	0.0	8,760.0	A	0.0	2.0	70.0	80.0

New Jersey Department of Environmental Protection
Potential to Emit

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS35**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
VOC (Total)		0.00600460	0.00600460	0.00600460	lb/hr	No

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS36**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
CO					lb/hr	No
HAPs (Total)					lb/hr	No
NOx (Total)					lb/hr	No
Pb					lb/hr	No
PM-10 (Total)					lb/hr	No
SO2					lb/hr	No
TSP					lb/hr	No
VOC (Total)		0.00600460	0.00600460	0.00600460	lb/hr	No

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS37**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
CO					lb/hr	No
HAPs (Total)					lb/hr	No
NOx (Total)					lb/hr	No

New Jersey Department of Environmental Protection
Potential to Emit

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS37**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
Pb					lb/hr	No
PM-10 (Total)					lb/hr	No
SO2					lb/hr	No
TSP					lb/hr	No
VOC (Total)		0.00600460	0.00600460	0.00600460	lb/hr	No

000000 E10005 (Storage Vessel)
Print Date: 2/13/2020

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,575
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	18.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	50.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	0.50
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 E10005 (Storage Vessel)
Print Date: 2/13/2020

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:	fiberglass tank

000000 E10006 (Storage Vessel)
Print Date: 2/13/2020

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,575
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	18.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	50.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	0.50
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 E10006 (Storage Vessel)
Print Date: 2/13/2020

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:	fiberglass tank

000000 E10007 (Storage Vessel)
Print Date: 2/13/2020

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,575
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	18.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	50.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	0.50
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 E10007 (Storage Vessel)
Print Date: 2/13/2020

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:	fiberglass tank

05067 Benjamin Moore and Company, Inc. PCP000000 U27 OS35 (Storage Vessel Content)
Print Date: 2/13/2020

Content Name:	Latex Resin
CAS Number:	
Is the Content Under Pressure?	No
Pressure (PSIG):	
Physical State:	Liquid
Estimated Average Working Volume:	4,000
Units:	gallons
Density of Contents:	9.000
Units:	lb/gal
Estimated Minimum Storage Temperature (deg F):	70.000
Estimated Maximum Storage Temperature (deg F):	80.000
Estimated Average Storage Temperature (deg F):	75.000
Does the Content Contain VOCs?:	Yes
Organic Density:	
Units:	lb/gal
Molecular Weight (Lbs/Lbs-Mole):	106.000
Vapor Pressure at Average Storage Temperature (PSIA):	0.014
Vapor Pressure at 70 deg F (mmHg):	
Estimated Average Annual Throughput:	125,000,000.0000
Units:	gallons
Estimated Maximum Annual Throughput:	125,000,000.0000
Units:	gallons

05067 Benjamin Moore and Company, Inc. PCP000000 U27 OS36 (Storage Vessel Content)
Print Date: 2/13/2020

Content Name:	Latex Resin
CAS Number:	
Is the Content Under Pressure?	No
Pressure (PSIG):	
Physical State:	Liquid
Estimated Average Working Volume:	4,000
Units:	gallons
Density of Contents:	9.000
Units:	lb/gal
Estimated Minimum Storage Temperature (deg F):	70.000
Estimated Maximum Storage Temperature (deg F):	80.000
Estimated Average Storage Temperature (deg F):	75.000
Does the Content Contain VOCs?:	Yes
Organic Density:	
Units:	lb/gal
Molecular Weight (Lbs/Lbs-Mole):	106.000
Vapor Pressure at Average Storage Temperature (PSIA):	0.014
Vapor Pressure at 70 deg F (mmHg):	
Estimated Average Annual Throughput:	125,000,000.0000
Units:	gallons
Estimated Maximum Annual Throughput:	125,000,000.0000
Units:	gallons

05067 Benjamin Moore and Company, Inc. PCP000000 U27 OS37 (Storage Vessel Content)
Print Date: 2/13/2020

Content Name:	Latex Resin
CAS Number:	
Is the Content Under Pressure?	No
Pressure (PSIG):	
Physical State:	Liquid
Estimated Average Working Volume:	4,000
Units:	gallons
Density of Contents:	9.000
Units:	lb/gal
Estimated Minimum Storage Temperature (deg F):	70.000
Estimated Maximum Storage Temperature (deg F):	80.000
Estimated Average Storage Temperature (deg F):	75.000
Does the Content Contain VOCs?:	Yes
Organic Density:	
Units:	lb/gal
Molecular Weight (Lbs/Lbs-Mole):	106.000
Vapor Pressure at Average Storage Temperature (PSIA):	0.014
Vapor Pressure at 70 deg F (mmHg):	
Estimated Average Annual Throughput:	125,000,000.0000
Units:	gallons
Estimated Maximum Annual Throughput:	125,000,000.0000
Units:	gallons

From:	John Yavorsky
To:	Yalartai, Bennett
Cc:	McClain, Jennifer; DeFroscia, Ron; Oser, Hiram; Agrawal, Sunila; Wong, Danny; Adhanom, Mike
Subject:	[EXTERNAL] Fwd: VOC vapor pressure of Latex Resin 80332
Date:	Tuesday, March 3, 2020 1:06:04 PM
Attachments:	Latex Resin VOC Vapor Pressure.xls BMtankVApressure.pdf BMemissions.pdf

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re-sending to everyone as requested by Bennett Yalartai.

---------- Forwarded message ---------
From: **John Yavorsky** <yavorsky@gmail.com>
Date: Mon, Mar 2, 2020 at 4:50 PM
Subject: VOC vapor pressure of Latex Resin 80332
To: McClain, Jennifer <Jennifer.McClain@dep.nj.gov>, Oser, Hiram <Hiram.Oser@dep.nj.gov>, DeFroscia, Ron <Ron.DeFroscia@benjaminmoore.com>, Yalartai, Bennett <bennett.yalartai@dep.nj.gov>

Jennifer,
To be clear about the calculation, I have re-done it using a spreadsheet and going back to basics as shown in the attached PDF and XLS. Instead of using weight fraction, I used mole fraction per Raoult's Law for Ideal Solutions. I used the vapor pressure from the EPA Tanks409d program (see attached) at the worst-case 90F. Also attached is a research article on vinyl acetate vapor pressure from the Canadian Journal of Research which gives consistent results to the EPA program.
The result is a VOC vapor pressure over the latex resin mixture of 0.0043 psia, well below the 0.02 psia exemption. This is a very rigorous calculation performed by an expert who has a PH.D. from MIT and a Professional Engineer License from the state of NJ. Furthermore, I literally wrote the book on VOC emissions from Benjamin Moore Facilities (unpublished document, but cover page attached).
In my expert opinion, I believe this to be a Worst-Case because it uses the temperature of 90F, whereas the Tanks calculation finds that the tank contents only go to a maximum of 71.8F. Furthermore, the range of vinyl acetate is 0.1 to 0.3% and I used the maximum of 0.3%. By assuming ideal behavior, the effect of the large molecular weight resin at 300,000 is under-counted. Furthermore, the non-ideal behavior of the weak hydrogen bonding with water are not considered, which would also reduce the actual vapor pressure of vinyl acetate in the mixture.
Please examine this calculation carefully and you should find that the case is proven that the expected vapor pressure of vinyl acetate is well below the exemption threshold.
Thank you for your assistance with this matter.

--
John Yavorsky, PH.D., P.E.
cell 908-256-0961

--
John Yavorsky
cell 908-256-0961

From:	John Yavorsky
To:	Yalartai, Bennett
Cc:	DeFroscia, Ron
Subject:	[EXTERNAL] PCP150001 worst case calculation
Date:	Tuesday, March 10, 2020 11:26:51 AM
Attachments:	BMworstCasePCP150001.pdf

Bennett,
Attached is a strategy that Ron DeFroscia and I have come up with to simplify the emission calculations. Please review it and let me know if it is OK. Meanwhile, you asked for us to let you know how much more time we will need. If the proposed strategy is OK, I hope to be able to finish by Friday. However I will be out of the country from Sat. 3/14 to Sunday 3/22 and I have some other commitments for the following week. Please grant us a further 30 days to complete this process.
Thank you for your assistance with this permit.

--
John Yavorsky
cell 908-256-0961

From:	DeFroscia, Ron
To:	Yalartai, Bennett
Cc:	John Yavorsky; Agrawal, Sunila; McClain, Jennifer
Subject:	[EXTERNAL] RE: Certifications for Additional Info Submittals for Pending Permit Application (05067/PCP20-0001)
Date:	Thursday, March 12, 2020 12:43:37 PM
Attachments:	image003.png PCP 150001 Reason for modification.pdf PCP 150001 BMtanks409dCalcs.pdf PCP 150001 PTE Caluclation.pdf PCP 150001deletionsRevised.pdf PCP15001 SDS 1 NOTSETUntitledNOTSET (021).pdf PCP 150001 SDS 2.pdf PCP 150001 RO Certification.pdf

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Bennett,

Attached please find the information that you requested. Please let me know if you have any questions or concerns. Ron

---

From: Yalartai, Bennett <Bennett.Yalartai@dep.nj.gov>
Sent: Thursday, March 12, 2020 9:34 AM
To: DeFroscia, Ron <Ron.DeFroscia@Benjaminmoore.com>
Cc: John Yavorsky <yavorsky@gmail.com>; Agrawal, Sunila <Sunila.Agrawal@dep.nj.gov>; McClain, Jennifer <Jennifer.McClain@dep.nj.gov>
Subject: Certifications for Additional Info Submittals for Pending Permit Application (05067/PCP20-0001)

[CAUTION - This email originated outside of Benjamin Moore]
Ron,

As the RO, the Departments need you to certify any and all additional info submittals for the pending permit application…including, but not limited, MSDS, electronic copy of PTE calculation Excel spreadsheet, PDF copies of TANKS4.09d results, revised PTE tables, and revised *reason for application* - correctly reflecting the correction to permitted tank sizes, and proposed list of tanks for deletion. A direct email from you (with the attachments) should suffice; however, if the consultant or any other facility rep is sending the new additional info…then, the requested submittal(s) must be accompanied by an RO certification.

On a related note, the Department is requesting submittal of a most recent SDS for the 80342 Latex raw material; the 06/13/2005 SDS is too old…and does not appear to be a standard SDS.

One additional important thing, by the way, is to keep all parties (facility reps, enforcement, and permitting staff) in the loop and on the same page in all communications related to the pending permit application. Therefore, pls maintain the email thread in your communications…

Thanks,

Bennett M. Yalartai
Environmental Engineer 3
Bureau of Stationary Sources
Tel: 609-633-8253
Email: bennett.yalartai@dep.nj.gov
http://www.nj.gov/dep/aqes/index.html
Please consider the environment before printing this email
Like us on Facebook

From: DeFroscia, Ron <Ron.DeFroscia@Benjaminmoore.com>
Sent: Thursday, March 12, 2020 7:55 AM
To: Yalartai, Bennett <Bennett.Yalartai@dep.nj.gov>
Subject: [EXTERNAL] Certifications

Bennett,

I have access as both the individual with Direct Knowledge and the Responsible Official. Is this acceptable? Ron

Benjamin Moore & Co.
134 Lister Avenue
Newark, New Jersey 07105
Mobile (201) 538-7602

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From:	DeFroscia, Ron
To:	Yalartai, Bennett
Subject:	[EXTERNAL] RE: Request for Info on Benjamin Moore Pending Air Permit Application (05067/PCP20-0001)
Date:	Tuesday, February 18, 2020 5:33:00 PM
Attachments:	image003.png

Benett,

Al Arnofsky is deceased. John Yavorsky is now our consultant. John's phone number is 908-256-0961. Ron

---

From: Yalartai, Bennett <Bennett.Yalartai@dep.nj.gov>
Sent: Tuesday, February 18, 2020 2:49 PM
To: Albert H. Arnofsky <albert@pleasanthillconsultants.com>
Cc: DeFroscia, Ron <Ron.DeFroscia@Benjaminmoore.com>; Agrawal, Sunila <Sunila.Agrawal@dep.nj.gov>
Subject: Request for Info on Benjamin Moore Pending Air Permit Application (05067/PCP20-0001)

[CAUTION - This email originated outside of Benjamin Moore]
Hi Albert,

As discussed, just a reminder to send us the following additional info asap, **on/or before next Tuesday, 25Feb2020**:

1. Copies of the manufacturer's specifications for the proposed modified storage tanks;
2. Copies of the PTE calculations based on **U.S. EPA's TANKS 4.09d** software program;
3. Clarification whether the current permitted combined annual total throughput limit will remain unchanged;
4. Clarification on whether or not new tanks are being added and/or if existing permitted tanks are being deleted, and
5. RO certification for the revised submittal.

Thanks,

Bennett M. Yalartai
Environmental Engineer 3
Bureau of Stationary Sources
Tel: 609-633-8253
Email: bennett.yalartai@dep.nj.gov
http://www.nj.gov/dep/aqes/index.html
Please consider the environment before printing this email
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From: DeFroscia, Ron
To: Yalartai, Bennett
Cc: John Yavorsky
Subject: [EXTERNAL] Reason for modification
Date: Monday, March 9, 2020 7:45:06 AM
Attachments: Reason for Modification BMpcp150001reason.pdf

Bennett,

Attached is the reason for modification for PCP 150001 Benjamin Moore 05067. Ron

Benjamin Moore & Co.
134 Lister Avenue
Newark, New Jersey 07105
Mobile (201) 538-7602

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From: DeFroscia, Ron
To: Yalartai, Bennett
Cc: John Yavorsky
Subject: [EXTERNAL] Revised List of Deleted Sources
Date: Wednesday, March 11, 2020 10:11:16 AM
Attachments: PCP 150001deletionsRevised.pdf

Bennett,

Attached is the revised list of sources that need to be deleted from PCP 150001. Ron

Benjamin Moore & Co.
134 Lister Avenue
Newark, New Jersey 07105
Mobile (201) 538-7602

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From:	John Yavorsky
To:	Yalartai, Bennett
Cc:	DeFroscia, Ron; Agrawal, Sunila
Subject:	[EXTERNAL] SDS sheets for Storage tanks PCP150001
Date:	Wednesday, March 11, 2020 12:09:28 PM
Attachments:	BMsdsGroup.pdf BMsds2.pdf BMcoalescent.pdf poly-gly-400-sds.pdf

---

Bennett,
Attached are SDS sheets for contents used in the storage tanks. Note that these are aqueous solutions and vapor pressure given are for water and not for the free monomer.
Note that, since we have calculated for the worst case VOC from all of these materials, it shouldn't matter which material goes in which tank. Furthermore the maximum quantity throughput for all these materials is limited to 3,600,000 gallons for a total maximum emissions of 37.1 lb/year VOC from all the tanks per the Tanks409d calculations previously sent.
You should already have the SDS for Latex Resin 80332.

--
John Yavorsky
cell 908-256-0961

From: DeFroscia, Ron
To: Yalartai, Bennett; John Yavorsky
Subject: [EXTERNAL] 80390 SDS
Date: Wednesday, March 11, 2020 12:12:48 PM
Attachments: NOTSET[Untitled]NOTSET.pdf

Please see attachment for 80390 SDS. Ron

From: DeFroscia, Ron <Ron.DeFroscia@Benjaminmoore.com>
Sent: Wednesday, March 11, 2020 12:07 PM
To: DeFroscia, Ron <Ron.DeFroscia@Benjaminmoore.com>
Subject: Digital Send From HP Printer

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PCP150001 Throughputs

U27 OS#	UOS DESCRIPTION	EQUIP. #	Tank ID	Material	Throughput Maximum Gallons	Comment
OS22	LATEX RESIN STORAGE TANK	E402	Tk2/Bld4	*	*	
OS23	LATEX RESIN STORAGE TANK	E408	Tk8/Bld4	delete		
OS24	LATEX RESIN STORAGE TANK	E409	Tk9/Bld4	delete		
OS26	LATEX RESIN STORAGE TANK	E1701	Tk1701	*	*	
OS27	LATEX RESIN STORAGE TANK	E1702	Tk1702	*	*	
OS28	LATEX RESIN STORAGE TANK	E1703	Tk1703	*	*	
OS29	LATEX RESIN STORAGE TANK	E1704	Tk1704	*	*	
OS30	LATEX RESIN STORAGE TANK	E10000	TK17/BLD4A	*	*	
OS31	LATEX RESIN STORAGE TANK	E10001	TK18/BLD4A	*	*	
OS32	LATEX RESIN STORAGE TANK	E10002	TK21/BLD4A	*	*	
OS33	LATEX RESIN STORAGE TANK	E10003	TK22/BLD4A	*	*	
OS34	LATEX RESIN STORAGE TANK	E10004	TK23/BLD4A	*	*	
OS35	**80332 LATEX RESIN STORAGE TANK**	**E10005**	**TK28/BLD4**	**80332**	**1300000**	
OS36	**80332 LATEX RESIN STORAGE TANK**	**E10006**	**TK29/BLD4**	**80332**	**“**	
OS37	**80332 LATEX RESIN STORAGE TANK**	**E10007**	**TK30/BLD4**	**80332**	**“**	
OS38	LATEX RESIN STORAGE TANK	E1802	Tk2/Bld18C	*	*	
OS39	LATEX RESIN STORAGE TANK	E1803	Tk3/Bld18C	*	*	
OS40	LATEX RESIN STORAGE TANK	E1804	Tk4/Bld18C	*	*	
OS41	SURFACTANT	E1805	Tk5/Bld18C	surfactant	100000	
OS42	LATEX RESIN STORAGE TANK	E1806	Tk6/Bld18C	*	*	
OS43	LATEX RESIN STORAGE TANK	E1807	Tk7/Bld18C	*	*	
OS44	Polyethylene Glycol	E1808	Tk8/Bld18C	Pogol 400	100000	Pv<0.08mmHg
OS45	SURFACTANT	E1149	Tk49/Bld11	delete		
OS46	SURFACTANT	E1107	Tk7A/Bld11	delete		
OS47	SURFACTANT	E1108	Tk8A/Bld11	delete		
OS48	SURFACTANT	E1705	Tk1705	De-foamer	52000	
OS49	Coalescent	E1706	Tk1706	Optifilm 400	125000	Non-VOC

Note that OS1 through OS21 were associated with Alkyd Paint Production which is no longer made at Newark.

*Throughput for all Latex Resin is 3,200,000 gallons (including 1,300,000 gallons of 80332 latex resin maximum in E10005, E10006 and E10007 combined)
“ Quantity included with another tank

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification		
User Identification:	E402	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		17.00
Diameter (ft):		10.00
Liquid Height (ft) :		16.00
Avg. Liquid Height (ft):		8.00
Volume (gallons):		10,000.00
Turnovers:		50.00
Net Throughput(gal/yr):		500,000.00
Is Tank Heated (y/n):	N	
Paint Characteristics		
Shell Color/Shade:	White/White	
Shell Condition	Good	
Roof Color/Shade:	White/White	
Roof Condition:	Good	
Roof Characteristics		
Type:	Dome	
Height (ft)		0.50
Radius (ft) (Dome Roof)		0.00
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Inside, New Jersey (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

E402 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
vinyl latex mix	All	70.01	68.21	71.81	70.02	0.0041	0.0039	0.0043	85.9235			38.05	
latex resin						0.0000	0.0000	0.0000	86.0000	0.5230	0.0000	300,000.00	Option 1: VP70 = .00001 VP80 = .00001
Vinyl acetate						1.8423	1.7545	1.9337	86.0900	0.0050	0.9995	86.09	Option 2: A=7.21, B=1296.13, C=226.66
water1						0.0000	0.0000	0.0000	18.0000	0.4720	0.0005	18.00	Option 1: VP70 = .00001 VP80 = .00001

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

E402 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
vinyl latex mix	3.20	0.22	3.42
latex resin	0.00	0.00	0.00
water1	0.00	0.00	0.00
Vinyl acetate	3.20	0.22	3.42

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification		
User Identification:	E10005	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		18.00
Diameter (ft):		10.00
Liquid Height (ft) :		16.00
Avg. Liquid Height (ft):		8.00
Volume (gallons):		9,400.33
Turnovers:		53.19
Net Throughput(gal/yr):		500,000.00
Is Tank Heated (y/n):	N	
Paint Characteristics		
Shell Color/Shade:	White/White	
Shell Condition	Good	
Roof Color/Shade:	White/White	
Roof Condition:	Good	
Roof Characteristics		
Type:	Dome	
Height (ft)		0.50
Radius (ft) (Dome Roof)		0.00
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Inside, New Jersey (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

E10005 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
latex resin mix	All	70.01	68.21	71.81	70.02	0.0041	0.0039	0.0043	85.9235			38.05	
latex resin						0.0000	0.0000	0.0000	86.0000	0.5230	0.0000	300,000.00	Option 1: VP70 = .00001 VP80 = .00001
Vinyl acetate						1.8423	1.7545	1.9337	86.0900	0.0050	0.9995	86.09	Option 2: A=7.21, B=1296.13, C=226.66
water1						0.0000	0.0000	0.0000	18.0000	0.4720	0.0005	18.00	Option 1: VP70 = .00001 VP80 = .00001

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

E10005 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
latex resin mix	3.05	0.25	3.30
Vinyl acetate	3.05	0.25	3.29
water1	0.00	0.00	0.00
latex resin	0.00	0.00	0.00

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification		
User Identification:	E1701	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		18.50
Diameter (ft):		12.00
Liquid Height (ft) :		17.00
Avg. Liquid Height (ft):		8.50
Volume (gallons):		14,382.50
Turnovers:		34.76
Net Throughput(gal/yr):		500,000.00
Is Tank Heated (y/n):	N	
Paint Characteristics		
Shell Color/Shade:	White/White	
Shell Condition	Good	
Roof Color/Shade:	White/White	
Roof Condition:	Good	
Roof Characteristics		
Type:	Dome	
Height (ft)		0.50
Radius (ft) (Dome Roof)		0.00
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Inside, New Jersey (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

E1701 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Vinyl Latex Resin	All	70.01	68.21	71.81	70.02	0.0041	0.0039	0.0043	85.9235			38.05	
latex resin						0.0000	0.0000	0.0000	86.0000	0.5230	0.0000	300,000.00	Option 1: VP70 = .00001 VP80 = .00001
Vinyl acetate						1.8423	1.7545	1.9337	86.0900	0.0050	0.9995	86.09	Option 2: A=7.21, B=1296.13, C=226.66
water1						0.0000	0.0000	0.0000	18.0000	0.4720	0.0005	18.00	Option 1: VP70 = .00001 VP80 = .00001

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

E1701 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Vinyl Latex Resin	4.17	0.35	4.53
latex resin	0.00	0.00	0.00
Vinyl acetate	4.17	0.35	4.53
water1	0.00	0.00	0.00

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification		
User Identification:	E10000	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		24.33
Diameter (ft):		10.00
Liquid Height (ft) :		23.00
Avg. Liquid Height (ft):		11.50
Volume (gallons):		13,512.97
Turnovers:		37.00
Net Throughput(gal/yr):		500,000.00
Is Tank Heated (y/n):	N	
Paint Characteristics		
Shell Color/Shade:	White/White	
Shell Condition	Good	
Roof Color/Shade:	White/White	
Roof Condition:	Good	
Roof Characteristics		
Type:	Dome	
Height (ft)		0.50
Radius (ft) (Dome Roof)		0.00
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Inside, New Jersey (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

E10000 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Vinyl Latex Resin	All	70.01	68.21	71.81	70.02	0.0041	0.0039	0.0043	85.9235			38.05	
latex resin						0.0000	0.0000	0.0000	86.0000	0.5230	0.0000	300,000.00	Option 1: VP70 = .00001 VP80 = .00001
Vinyl acetate						1.8423	1.7545	1.9337	86.0900	0.0050	0.9995	86.09	Option 2: A=7.21, B=1296.13, C=226.66
water1						0.0000	0.0000	0.0000	18.0000	0.4720	0.0005	18.00	Option 1: VP70 = .00001 VP80 = .00001

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

E10000 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Vinyl Latex Resin	4.08	0.31	4.39
latex resin	0.00	0.00	0.00
Vinyl acetate	4.08	0.31	4.39
water1	0.00	0.00	0.00

E402, 500,000 gal
Acrylic.

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	E402
City:	
State:	
Company:	
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	17.00
Diameter (ft):	10.00
Liquid Height (ft) :	16.00
Avg. Liquid Height (ft):	8.00
Volume (gallons):	10,000.00
Turnovers:	50.00
Net Throughput(gal/yr):	500,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft)	0.50
Radius (ft) (Dome Roof)	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Inside, New Jersey (Avg Atmospheric Pressure = 14.7 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

E402 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
acrylic latex mix	All	70.01	68.21	71.81	70.02	0.0001	0.0001	0.0001	96.2421			36.80	
Acrylic Resin						0.0001	0.0001	0.0001	128.0000	0.5100	0.0001	300,000.00	Option 1: VP70 = .0001 VP80 = .0001
Butyl Acrylate						0.0820	0.0777	0.0878	128.1700	0.0005	0.1237	128.17	Option 1: VP70 = .082 VP80 = .114
Methyl methacrylate						0.5711	0.5409	0.6027	100.1100	0.0005	0.8614	100.11	Option 2: A=8.409, B=2050.5, C=274.4
water1						0.0000	0.0000	0.0000	18.0000	0.4890	0.0148	18.00	Option 1: VP70 = .00001 VP80 = .00001

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

E402 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
acrylic latex mix	0.11	0.01	0.12
Acrylic Resin	0.00	0.00	0.00
water1	0.00	0.00	0.00
Butyl Acrylate	0.01	0.00	0.01
Methyl methacrylate	0.10	0.01	0.10

Worst Case Calculation of VOC Emissions from Benjamin Moore Storage Tanks

To simplify the problem with at least 8 different latex resins and several other materials (de-foamers, etc.) and 4 different tank, I have developed a strategy to do this on a simplified worst case scenario. The Tanks409d calculation for the 3 revised tanks was based on a latex resin with residual monomer of 0.3% vinyl acetate (VA), based on a technical data sheet that gave a range of 0.1 to 0.3%. Examining the SDS sheets for 4 different vinyl latex resins showed they all gave a range of 0.1 to 0.5%. Therefore a worst case of 0.5% VA will suffice for all Vinyl resins. There are also acrylic latex resins that have extremely low traces of Butyl Acrylate (BA) and Methyl Methacrylate (MMA). Most SDS sheets do not list these traces but one Technical Data Sheet listed them as each "<0.005%". Since these are bigger molecules with lower vapor pressures than VA and at much lower concentration, we can use the calculation with vinyl resin as a worst case for all the latex resins. There are several other materials, such as surfactants and coalescents that are processed in these tanks. Examining the SDS sheets and technical data for the contents for these materials, Vinyl latex resin will also represent a worst-case emission for those as well.

There are 4 sizes of tanks and I will run the Tanks409d for each size to get both an "breathing loss"in lb/year/tank per tank as well as a throughput loss that can be expressed as lb/1000 gallons emission factors. Worst-case total emissions for all the tanks can then be calculated by summing up the breathing losses for each tank and using the highest throughput emission factor for all the tanks times the gallons of throughput.

From: Adhanom, Mike
To: Agrawal, Sunila; Yalartai, Bennett
Subject: FW: [EXTERNAL] VOC vapor pressure of Latex Resin 80332
Date: Tuesday, March 3, 2020 3:03:49 PM

FYI only

Mike Adhanom
Section Chief
Bureau of Stationary Sources
Air Quality Permitting
New Jersey Department of Environmental Protection
Phone – (609) 633-8242
email – Mike.Adhanom@dep.nj.gov
http://www.state.nj.us/dep/aqpp/

From: Wong, Danny <Danny.Wong@dep.nj.gov>
Sent: Tuesday, March 3, 2020 2:58 PM
To: Meyer, Jeffrey <Jeffrey.Meyer@dep.nj.gov>
Cc: McClain, Jennifer <Jennifer.McClain@dep.nj.gov>; Oser, Hiram <Hiram.Oser@dep.nj.gov>; Adhanom, Mike <Mike.Adhanom@dep.nj.gov>
Subject: RE: [EXTERNAL] VOC vapor pressure of Latex Resin 80332

Jeff,

Talked to my staff. If there is a SDS available for a substance, I would say use it. If this guy really thinks his calculation is better, have him convince the manufacturer of the substance to change the SDS information to his. Until then, SDS is what we would use. By the way, my understanding is that the manufacturer here is his own client, and if he feels so strongly about his calculation, then he should have no problem in getting his client to update their SDS.

As this is permit applicability, I've reminded my staff that Enforcement is lead on that.

Let me know if you need anything else.

Danny

From: Meyer, Jeffrey <Jeffrey.Meyer@dep.nj.gov>
Sent: Tuesday, March 3, 2020 10:08 AM
To: Wong, Danny <Danny.Wong@dep.nj.gov>
Cc: McClain, Jennifer <Jennifer.McClain@dep.nj.gov>; Oser, Hiram <Hiram.Oser@dep.nj.gov>
Subject: FW: [EXTERNAL] VOC vapor pressure of Latex Resin 80332

Danny, can you provide an opinion on this Bennett is copied on this.

From: McClain, Jennifer <Jennifer.McClain@dep.nj.gov>

Sent: Tuesday, March 3, 2020 9:56 AM
To: Meyer, Jeffrey <Jeffrey.Meyer@dep.nj.gov>
Subject: FW: [EXTERNAL] VOC vapor pressure of Latex Resin 80332

Jennifer McClain
New Jersey Department of Environmental Protection
Northern Air Compliance and Enforcement
7 Ridgedale Avenue
Cedar Knolls, NJ 07927
Phone: (973) 656-4444
Fax: (973) 656-4080

From: John Yavorsky <yavorsky@gmail.com>
Sent: Monday, March 2, 2020 4:51 PM
To: McClain, Jennifer <Jennifer.McClain@dep.nj.gov>; Oser, Hiram <Hiram.Oser@dep.nj.gov>; DeFroscia, Ron <Ron.DeFroscia@benjaminmoore.com>; Yalartai, Bennett <Bennett.Yalartai@dep.nj.gov>
Subject: [EXTERNAL] VOC vapor pressure of Latex Resin 80332

Jennifer,
To be clear about the calculation, I have re-done it using a spreadsheet and going back to basics as shown in the attached PDF and XLS. Instead of using weight fraction, I used mole fraction per Raoult's Law for Ideal Solutions. I used the vapor pressure from the EPA Tanks409d program (see attached) at the worst-case 90F. Also attached is a research article on vinyl acetate vapor pressure from the Canadian Journal of Research which gives consistent results to the EPA program.
The result is a VOC vapor pressure over the latex resin mixture of 0.0043 psia, well below the 0.02 psia exemption. This is a very rigorous calculation performed by an expert who has a PH.D. from MIT and a Professional Engineer License from the state of NJ. Furthermore, I literally wrote the book on VOC emissions from Benjamin Moore Facilities (unpublished document, but cover page attached).
In my expert opinion, I believe this to be a Worst-Case because it uses the temperature of 90F, whereas the Tanks calculation finds that the tank contents only go to a maximum of 71.8F.
Furthermore, the range of vinyl acetate is 0.1 to 0.3% and I used the maximum of 0.3%. By assuming ideal behavior, the effect of the large molecular weight resin at 300,000 is under-counted.
Furthermore, the non-ideal behavior of the weak hydrogen bonding with water are not considered, which would also reduce the actual vapor pressure of vinyl acetate in the mixture.
Please examine this calculation carefully and you should find that the case is proven that the expected vapor pressure of vinyl acetate is well below the exemption threshold.
Thank you for your assistance with this matter.

--
John Yavorsky, PH.D., P.E.
cell 908-256-0961

SAFETY DATA SHEET

Revision Date: *12-Nov-2019* **Revision Number:** *1*

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	**80332 LATEX**
Product Code	**80332**
Product Class	Latex vehicle
Color	White
Recommended use	Latex vehicle
Restrictions on use	No information available

Manufacturer
Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 1-866-708-9180
www.benjaminmoore.com

Emergency Telephone
CHEMTREC (US): 800-424-9300
CHEMTREC (outside US): (703)-527-3887

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 2

Label elements

Warning

Hazard statements
Suspected of causing cancer

Appearance Milky white viscous liquid **Odor** acrylate

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other information
No information available

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Vinyl acetate	108-05-4	0.1 - 0.5

4. FIRST AID MEASURES

General Advice No hazards which require special first aid measures.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Consult a physician if necessary.

Most Important Symptoms/Effects None known.

Notes To Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific Hazards Arising From The Chemical	Closed containers may rupture if exposed to fire or extreme heat. Cool heated containers with water to minimize the risk of rupture. This material will not burn unless it is evaporated to dryness.
Sensitivity to mechanical impact	No
Sensitivity to static discharge	No
Flash Point Data	
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability Limits In Air	
Lower flammability limit:	Not applicable
Upper flammability limit:	Not applicable

NFPA **Health:** 1 **Flammability:** 1 **Instability:** 0 **Special:** Not Applicable

NFPA Legend
0 - Not Hazardous
1 - Slightly
2 - Moderate
3 - High
4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
Other Information	Prevent further leakage or spillage if safe to do so.
Environmental precautions	See Section 12 for additional Ecological Information.
Methods for Cleaning Up	Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Avoid breathing vapors, spray mists or sanding dust. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage	Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers.

Incompatible Materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
Vinyl acetate	10 ppm - TWA 15 ppm - STEL	N/E

Legend
OSHA - Occupational Safety & Health Administration Exposure Limits
ACGIH - American Conference of Governmental Industrial Hygienists
Alberta - Alberta Occupational Exposure Limits
British Columbia - British Columbia Occupational Exposure Limits
Ontario - Ontario Occupational Exposure Limits
Quebec - Quebec Occupational Exposure Limits
N/E - Not Established

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields. If splashes are likely to occur, wear:. Goggles.
Skin Protection Protective gloves and impervious clothing.
Respiratory Protection In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically qualified person for the specific work conditions.

Hygiene Measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Milky white viscous liquid
Odor	acrylate
Odor Threshold	No information available
Density (lbs/gal)	8.8 - 9.2
Specific Gravity	1.06 - 1.10
pH	3.5 - 5.5
Viscosity (cps)	300 - 1500
Solubility(ies)	No information available
Water solubility	dispersible
Evaporation Rate	0.4 (butyl acetate = 1)
Vapor pressure	23.76 mmHg @ 20°C
Vapor density	>1 (air = 1)
Wt. % Solids	51.4 - 53.4
Vol. % Solids	47.8 - 49.8
Wt. % Volatiles	46.6 - 48.6
Vol. % Volatiles	50.2 - 52.2
VOC Regulatory Limit (g/L)	Not applicable
Boiling Point (°F)	212

Boiling Point (°C)	100
Freezing point (°F)	32
Freezing Point (°C)	0
Flash point (°F)	Not applicable
Flash Point (°C)	Not applicable
Method	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition coefficient	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
Chemical Stability	Stable under normal conditions.
Conditions to avoid	Prevent from freezing.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors.
Possibility of hazardous reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information No information available

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact	May cause slight irritation.
Skin contact	Substance may cause slight skin irritation. Prolonged or repeated contact may dry skin and cause irritation.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Sensitization	No information available

Neurological Effects	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	No information available.
Developmental Effects	No information available.
Target organ effects	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Other adverse effects	No information available.
Aspiration Hazard	No information available

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Vinyl acetate 108-05-4	= 2920 mg/kg (Rat)	= 2335 mg/kg (Rabbit)	= 11400 mg/m³ (Rat) 4 h = 11.4 mg/L (Rat) 4 h

Carcinogenicity
The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
Vinyl acetate	2B - Possible Human Carcinogen		Listed

Legend
IARC - International Agency for Research on Cancer
NTP - National Toxicity Program
OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects
The environmental impact of this product has not been fully investigated.

Product Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

Persistence / Degradability
No information available.

Bioaccumulation
There is no data for this product.

Mobility in Environmental Media

No information available.

Ozone
No information available

Component Information

Acute Toxicity to Fish
No information available

Acute Toxicity to Aquatic Invertebrates
No information available

Acute Toxicity to Aquatic Plants
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

14. TRANSPORT INFORMATION

DOT	Not regulated
ICAO / IATA	Not regulated
IMDG / IMO	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: United States	Yes - All components are listed or exempt.
DSL: Canada	Yes - All components are listed or exempt.

Federal Regulations

SARA 311/312 hazardous categorization

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal

Regulations, Part 372:

Chemical name	CAS No.	Weight-%	CERCLA/SARA 313 (de minimis concentration)
Vinyl acetate	108-05-4	0.1 - 0.5	0.1

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:

Chemical name	CAS No.	Weight-%	Hazardous Air Pollutant (HAP)
Vinyl acetate	108-05-4	0.1 - 0.5	Listed

US State Regulations

California Proposition 65

⚠ **WARNING:** Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Vinyl acetate	X	X	X

Legend
X - Listed

16. OTHER INFORMATION

HMIS - **Health:** 1* **Flammability:** 1 **Reactivity:** 0 **PPE:** -

HMIS Legend
0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard
* - Chronic Hazard
X - Consult your supervisor or S.O.P. for "Special" handling instructions.
Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead

exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Prepared By	Product Stewardship Department Benjamin Moore & Co. 101 Paragon Drive Montvale, NJ 07645 800-225-5554
Revision Date:	12-Nov-2019
Revision Summary	Change to Format

Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

End of Safety Data Sheet

From: John Yavorsky
To: Yalartai, Bennett; Agrawal, Sunila; DeFroscia, Ron; McClain, Jennifer
Subject: [EXTERNAL] Benjamin Moore PCP150001 Throughputs
Date: Friday, March 6, 2020 4:56:36 PM
Attachments: BMPCP150001permitGallons.pdf

Bennett,
Attached is a list of the Operating Scenarios in the permit with maximum annual throughputs. Note that many of the tanks are no longer being used. Please let me know if there is any other information you require to process this permit modification.
Thank you for your assistance with this permit.

--
John Yavorsky,Ph.D., P.E.
cell 908-256-0961

80342

6/13/05

LATEX Supplier: Benjamin Moore & Co.

Latex (HG612755)

Acrylic Latex

Non-Volatile Content.....51.0 + 0.5% (50.5-51.5)
Weight/Gallon (lb./gal).....8.75 to 8.95
Low Shear Viscosity
(Brookfield, Spindle #2, speed 20).....500 to 900 cps
High Shear Viscosity
(Cone/Plate: ICI Americas) .....N/A
ph.....8.5 to 9.5
Film Clarity.....Clear
Mechanical Stability (Hamilton Beach)..Pass 30 minutes
Free Monomer (BA).....Less than 0.05%
(MMA).....Less than 0.05%
Particle Size .....0.150 to 0.225 micrometers
Grit (140 Mesh).....100ppm
HMIS.....1,0,0,B
SARA III.....-,-,-,-,-
CAS# Acrylic Resin (51.0%).....25852-37-3
CAS# Water (49.0%).....7732-18-5

Benjamin Moore and Company, Inc. (05067)

Date: 2/13/2020

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: PCP **Number:** 150001

Description of Modifications: The exisitng permit needs to be modified to iincrease the size of 3 latex resin storage tanks (E10005, E10006 and E10007) from 6000 gal. to 10,575 gal. each. Since these tanks are inside, the emissions are dependent on the throughput and no increase in emissions will occur.

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): Benjamin Moore and Company, Inc.

Facility ID (AIMS): 05067

Street Address: 134 LISTER AVE
NEWARK, NJ 07105

Mailing Address: 134 LISTER AVE
NEWARK, NJ 07105

State Plane Coordinates:

X-Coordinate:	573,100
Y-Coordinate:	4,510,000
Units:	Meters
Datum:	NAD27
Source Org.:	Other/Unknown
Source Type:	Other/Unknown

County: Essex

Location Description: Paint Manufacturing

Industry:

Primary SIC:	2851
Secondary SIC:	
NAICS:	

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Air Permit Information Contact**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Contact Type: **BAQE - Engineering**

Organization: BENJAMIN MOORE & CO.

Org. Type: Corporation

Name: Michael Peters

NJ EIN: 00263700001

Title: EHS SPECIALIST

Phone: (973) 252-2653 x

Fax: (973) 252-2659 x

Other: ( ) - x

Type:

Email: michael.peters@benjaminmoore.com

Mailing Address: 360 Route 206
PO Box 4000
FLANDERS, NJ 07836

Contact Type: **BAQE - Evaluation**

Organization: BENJAMIN MOORE & CO.

Org. Type: Corporation

Name: Michael Peters

NJ EIN: 00263700001

Title: EHS SPECIALIST

Phone: (973) 252-2653 x

Fax: (973) 252-2659 x

Other: ( ) - x

Type:

Email: michael.peters@benjaminmoore.com

Mailing Address: 360 Route 206
PO Box 4000
FLANDERS, NJ 07836

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Consultant**

Organization: Pleasant Hill Consultants, Inc.

Org. Type: Corporation

Name: Albert Arnofsky

NJ EIN:

Title: President

Phone: (973) 927-0346 x

Fax: (973) 927-9269 x

Other: (201) 826-0104 x

Type: Mobile

Email: albert@pleasanthillconsultants.com

Mailing Address: 34 Pleasant Hill Road
Succusanna, NJ 07876

Contact Type: **Emission Statements**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Contact Type: **Environmental Officer**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Fees/Billing Contact**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Contact Type: **General Contact**

Organization: Benjamin Moore & Company, Inc.

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EHS Specialist

Phone: (973) 344-1200 x5292

Mailing Address: 134 Lister Ave
Newark, NJ 07105

Fax: ( ) - x

Other: ( ) - x

Type:

Email: ron.defroscia@benjaminmoore.com

Contact Type: **On-Site Manager**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Regulation Officer**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Contact Type: **Responsible Official**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Contact Type: **Responsible Party**

Organization: Benjamin Moore & Company

Org. Type: Corporation

Name: Ron DeFroscia

NJ EIN: 00263700001

Title: EH&S Process Manager

Phone: (201) 538-7602 x

Mailing Address: 360 Route 206
P.O. Box 400
Flanders, NJ 07836

Fax: ( ) - x

Other: ( ) - x

Type:

Email: Ron.DeFroscia@benjaminmoore.com

Benjamin Moore and Company, Inc. (05067) Date: 2/13/2020

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?	No
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?	No
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?	No

Benjamin Moore and Company, Inc. (05067) Date: 2/13/2020

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
E10005	TK28/BLD4	Latex Resin Storage	Storage Vessel	PCP150001		No		
E10006	TK29/BLD4	Latex Resin Storage	Storage Vessel	PCP150001		No		
E10007	TK30/BLD4	Latex Resin Storage	Storage Vessel	PCP150001		No		

Benjamin Moore and Company, Inc. (05067)

Date: 2/13/2020

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.		
PT10005	TK28/BLD4	LATEX RESIN STORAGE	Round	6	22	68	75.0	70.0	80.0	1.0	0.0	2.0	Up	
PT10006	TK29/BLD4	LATEX RESIN STORAGE	Round	6	22	68	75.0	70.0	80.0	1.0	0.0	2.0	Up	
PT10007	TK30/BLD4	LATEX RESIN STORAGE	Round	6	22	70	75.0	70.0	80.0	1.0	0.0	2.0	Up	

Benjamin Moore and Company, Inc. (05067)

Date: 2/13/2020

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

U 27 TKS 4,4A, 17 Resin Tanks 4, 4a,17

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.
OS35	TK28/BLDG 4	80333 LATEX RESIN STORAGE TANKS	Normal - Steady State	E10005		PT10005	3-01-014-04	0.0	8,760.0	A	0.0	2.0	70.0	80.0
OS36	TK29/BLDG 4	80333 LATEX RESIN STORAGE TANKS	Normal - Steady State	E10005		PT10006	3-01-014-04	0.0	8,760.0	A	0.0	2.0	70.0	80.0
OS37	TK30/BLDG 4	80333 LATEX RESIN STORAGE TANKS	Normal - Steady State	E10005		PT10007	3-01-014-04	0.0	8,760.0	A	0.0	2.0	70.0	80.0

New Jersey Department of Environmental Protection
Potential to Emit

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS35**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
VOC (Total)		0.00600460	0.00600460	0.00600460	lb/hr	No

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS36**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
CO					lb/hr	No
HAPs (Total)					lb/hr	No
NOx (Total)					lb/hr	No
Pb					lb/hr	No
PM-10 (Total)					lb/hr	No
SO2					lb/hr	No
TSP					lb/hr	No
VOC (Total)		0.00600460	0.00600460	0.00600460	lb/hr	No

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS37**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
CO					lb/hr	No
HAPs (Total)					lb/hr	No
NOx (Total)					lb/hr	No

New Jersey Department of Environmental Protection
Potential to Emit

Subject Item: **U27 TKS 4,4A, 17**

Operating Scenario: **OS37**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
Pb					lb/hr	No
PM-10 (Total)					lb/hr	No
SO2					lb/hr	No
TSP					lb/hr	No
VOC (Total)		0.00600460	0.00600460	0.00600460	lb/hr	No

000000 E10005 (Storage Vessel)
Print Date: 2/13/2020

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,575
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	18.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	50.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	0.50
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 E10005 (Storage Vessel)
Print Date: 2/13/2020

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:	fiberglass tank

000000 E10006 (Storage Vessel)
Print Date: 2/13/2020

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,575
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	18.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	50.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	0.50
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 E10006 (Storage Vessel)
Print Date: 2/13/2020

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:	fiberglass tank

000000 E10007 (Storage Vessel)
Print Date: 2/13/2020

What type of contents is this storage vessel equipped to contain by design?	Liquids Only
Storage Vessel Type:	Tank
Design Capacity:	10,575
Units:	gallons
Ground Location:	Above Ground
Is the Shell of the Equipment Exposed to Sunlight?	No
Shell Color:	
Description (if other):	
Shell Condition:	
Paint Condition:	Good
Shell Construction:	
Is the Shell Insulated?	No
Type of Insulation:	
Insulation Thickess (in):	
Thermal Conductivity of Insulation [(BTU)(in)(hr)(ft2)(deg F)]:	
Shape of Storage Vessel:	Cylindrical
Shell Height (From Ground to Roof Bottom) (ft):	18.00
Length (ft):	
Width (ft):	
Diameter (ft):	10.00
Other Dimension	
Description:	
Value:	
Units:	
Fill Method:	Submerged
Description (if other):	
Maximum Design Fill Rate:	50.00
Units:	gal/min
Does the storage vessel have a roof or an open top?	Roof
Roof Type:	Domed vertical fixed roof tank
Roof Height (From Roof Bottom to Roof Top) (ft):	0.50
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 E10007 (Storage Vessel)
Print Date: 2/13/2020

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:	fiberglass tank

05067 Benjamin Moore and Company, Inc. PCP000000 U27 OS35 (Storage Vessel Content)
Print Date: 2/13/2020

Content Name:	Latex Resin
CAS Number:	
Is the Content Under Pressure?	No
Pressure (PSIG):	
Physical State:	Liquid
Estimated Average Working Volume:	4,000
Units:	gallons
Density of Contents:	9.000
Units:	lb/gal
Estimated Minimum Storage Temperature (deg F):	70.000
Estimated Maximum Storage Temperature (deg F):	80.000
Estimated Average Storage Temperature (deg F):	75.000
Does the Content Contain VOCs?:	Yes
Organic Density:	
Units:	lb/gal
Molecular Weight (Lbs/Lbs-Mole):	106.000
Vapor Pressure at Average Storage Temperature (PSIA):	0.014
Vapor Pressure at 70 deg F (mmHg):	
Estimated Average Annual Throughput:	125,000,000.0000
Units:	gallons
Estimated Maximum Annual Throughput:	125,000,000.0000
Units:	gallons

05067 Benjamin Moore and Company, Inc. PCP000000 U27 OS36 (Storage Vessel Content)
Print Date: 2/13/2020

Content Name:	Latex Resin
CAS Number:	
Is the Content Under Pressure?	No
Pressure (PSIG):	
Physical State:	Liquid
Estimated Average Working Volume:	4,000
Units:	gallons
Density of Contents:	9.000
Units:	lb/gal
Estimated Minimum Storage Temperature (deg F):	70.000
Estimated Maximum Storage Temperature (deg F):	80.000
Estimated Average Storage Temperature (deg F):	75.000
Does the Content Contain VOCs?:	Yes
Organic Density:	
Units:	lb/gal
Molecular Weight (Lbs/Lbs-Mole):	106.000
Vapor Pressure at Average Storage Temperature (PSIA):	0.014
Vapor Pressure at 70 deg F (mmHg):	
Estimated Average Annual Throughput:	125,000,000.0000
Units:	gallons
Estimated Maximum Annual Throughput:	125,000,000.0000
Units:	gallons

05067 Benjamin Moore and Company, Inc. PCP000000 U27 OS37 (Storage Vessel Content)
Print Date: 2/13/2020

Content Name:	Latex Resin
CAS Number:	
Is the Content Under Pressure?	No
Pressure (PSIG):	
Physical State:	Liquid
Estimated Average Working Volume:	4,000
Units:	gallons
Density of Contents:	9.000
Units:	lb/gal
Estimated Minimum Storage Temperature (deg F):	70.000
Estimated Maximum Storage Temperature (deg F):	80.000
Estimated Average Storage Temperature (deg F):	75.000
Does the Content Contain VOCs?:	Yes
Organic Density:	
Units:	lb/gal
Molecular Weight (Lbs/Lbs-Mole):	106.000
Vapor Pressure at Average Storage Temperature (PSIA):	0.014
Vapor Pressure at 70 deg F (mmHg):	
Estimated Average Annual Throughput:	125,000,000.0000
Units:	gallons
Estimated Maximum Annual Throughput:	125,000,000.0000
Units:	gallons