30 April 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 Application for Poly Drum Wash Line (PCP190002)
Industrial Container Services, LLC. 267 Jefferson Street, Camden, NJ
Facility ID No. 51924

Dear Sir/Madam:

The enclosed application is for a modification to our Subchapter 8 permit (PCP190002) for our Industrial Container Services, LLC (ICS) facility in Camden, NJ (Facility ID No. 51924). ICS, as a subsidiary of its parent company Mauser Packaging Solutions, is the largest provider of reusable industrial container solutions in North America, and we provide customers with a variety of environmentally responsible products and solutions.

Facility Description

The ICS Camden facility is a plastic container washing facility that consists of two wash lines - one for intermediate bulk containers (IBCs or "totes") and one for poly (plastic) drums. This permit modification is for the Poly Drum Wash Line.

The vast majority of poly drums received and processed at the Camden facility previously contained only inorganic materials, such as acids, caustics, peroxides, and bleach. A much smaller percentage of drums previously contained organic materials, such as food-grade flavorings and alcohol/water solutions. All drums and totes received at the facility are empty containers with a minimal residual "heel" remaining on the bottom of each container. Any containers that previously contained hazardous materials are considered as "RCRA empty" per 40 CFR Section 261.7 and therefore are exempt from hazardous waste treatment, storage, and disposal regulations.

The drum cleaning process includes spraying the interior of the drums with a heated wash water followed by a water rinse. The drums are then drained of the water rinse, the drum interiors are steamed to facilitate drying, residual water is vacuumed out of each drum, the

drum interiors are inspected, and lastly the drum exteriors are wiped down. See Figure 1 for a process flow diagram of the drum wash process, and see the permit application submitted on August 28, 2019 for a more detailed description of the process and facility operations.

Proposed Permit Modifications

On May 13, 2022, the Department requested that ICS conduct stack emission testing on the drum line wash operations (U1, OS1) to demonstrate compliance with the permit-approved VOC air emission rate of 2.33 lbs/hour (Permit No. PCP190002, Subject Item U1, OS1, Ref. #5). The stack testing requirement specified that compliance would be determined based on the average of three validated stack test runs.

The required stack testing was conducted on June 27, 2023 (TST # 220001). The results indicated an average VOC emission rate of 3.99 lbs/hour, while processing at an average of 82 drums per hour. This permit application is to modify the maximum hourly emission rate to reflect emission rates determined from the recent stack testing and changes to the maximum processing rate.

The current permit for the Poly Drum and Tote Washing Systems (U1) was issued on September 8, 2020. Emission rates in the current permit were estimated based on calculations provided by ICS in the associated August 28, 2019 permit application. The estimates were developed based on a survey of drums processed at the facility during a 10-day period to determine VOC constituent contents and associated partial vapor pressures. Emissions from the drums were then estimated assuming that the drum volumes are saturated with VOC based on the constituents in the drum, with the volume of the drum emitted during the cleaning process.

An overall emission factor of 0.0291 lbs VOC/drum processed was developed based on these calculations. Hourly VOC emission rates from the drum washing were determined based on the emission factor and a maximum processing rate of 80 drums per hour. Annual potential emissions from the drum washing were estimated based on a maximum annual processing rate of 187,000 drums per year.

A revised emission factor of 0.0489 lbs VOC/drum processed was developed based on the June 27, 2023 stack testing results (see Table 1 attached), which is the average emission factor from the three test runs. A revised maximum VOC hourly emission rate was estimated at 3.2 lbs/hour based on a maximum of 65 drums processed per hour. Potential annual VOC emissions from the drum washing line are based on a maximum processing rate of 135,200 drums per year.

ICS believes that the revised maximum VOC emission rate is more representative of maximum operating conditions and emissions from the drum washing operations due to:

- Actual hourly production rates at the facility are typically 45 drums per hour or less. A maximum rate of 65 drums per hour is more representative of the maximum that could realistically be achieved.

- Emission rates are determined based on an emission factor determined based on actual stack testing results instead of theoretical calculations.

- The stack testing was conducted with all drums having previously stored VOC-containing materials. The maximum potential hourly and annual VOC emission rates in the current permit were also estimated assuming that all drums processed previously contained VOC materials. As previously noted, most of the drums processed at the facility previously contained only inorganic materials with no VOC materials present. Rarely, if ever, would the facility process only VOC-containing drums in any hour.

Note that there are no physical changes in the drum (OS1) or tote washing operations (OS2) and solvent cleaning with wipe rags (OS3) proposed as part of this permit modification, including no changes in materials processed or increases in production rates. Therefore, as noted in the August 28, 2019 permit application, there are no hazardous air pollutant (HAP) emission rates above the reporting thresholds identified in N.J.A.C. 7:27-17.9.

The drum cleaning operations are subject to the requirements of 7:27-16.16 that establishes maximum allowable VOC emission rates for "other source operations." Based on measured VOC concentrations from the June 27, 2023, stack testing of less than 1,000 ppm, the drum washing operations classify as Range A from Table 16B per 7:27-16.16(d), resulting in a maximum allowable VOC emission rate of 3.5 lbs/hour per Table 16A per 7:27-16.16(d). The proposed maximum VOC emission rate of 3.2 lbs/hour complies with the maximum allowable emission rate per 7:27-16.16.

The maximum potential annual emission rate from the drum washing operation is 3.3 tons per year. The state of the art (SOTA) requirements of N.J.A.C. 7:27-8.12 apply to new, modified, or reconstructed equipment and control apparatus with potential emissions equal to or above the corresponding thresholds (5 tons per year of VOC, NOx, CO, SO2, or particulate matter). Potential emissions from the drum washing operations are below the threshold limits based on the limits proposed for the permit. Therefore, the SOTA requirements of N.J.A.C. 7:27-8.12 do not apply.

Closing

We would be pleased to answer any questions about the application. Please contact me at (781) 793-4002 (mobile) or peter.dipasca@mauserpackaging.com or Mr. Randall Abbuhl of

Weston Solutions, Inc. at (732) 417-5810 or r.abbuhl@westonsolutions.com.

We also request the opportunity to review/discuss any permit conditions with you prior to their issuance.

Sincerely,

MAUSER PACKAGING SOLUTIONS /
INDUSTRIAL CONTAINER SERVCES, LLC

Peter T. DiPasca, Jr., P.E.
Director, Environmental Compliance and Sustainability

cc: Randall Abbuhl, Weston Solutions
Domenica Talvacchio, ICS
Rick Capps, Mauser Packaging Solutions
Hilton Gericke, Mauser Packaging Solutions
Lorne Mills, Mauser Packaging Solutions

Table 1 - Backup Emission Calculations for U1, OS1
Industrial Container Services LLC
Camden, NJ Facility Program Interest # 51924

Stack Test Results from June 27, 2023 (TST #: 220001)

	Run 1	Run 2	Run 3	Average
VOC, ppmvd	337.3	307.5	322.3	322.4
VOC, lbs/hour	4.19	3.80	4.00	3.997
Drums per hour	78	84	84	82.0
lbs VOC/drum	0.0537	0.0452	0.0476	0.0489

Average Emission Factor:	0.0489	lbs VOC/drum (from stack testing)
Maximum Processing Rate:	65	drums/hour
Maximum Emission Rate:	3.2	lbs VOC/hour

Projected Maximum Production		
Emission Factor:	0.0489	lbs VOC/drum
Maximum Annual Production:	135,200	drums/year
Maximum Annual Emissions:	6,606	lbs VOC/year
	3.30	tons VOC/year

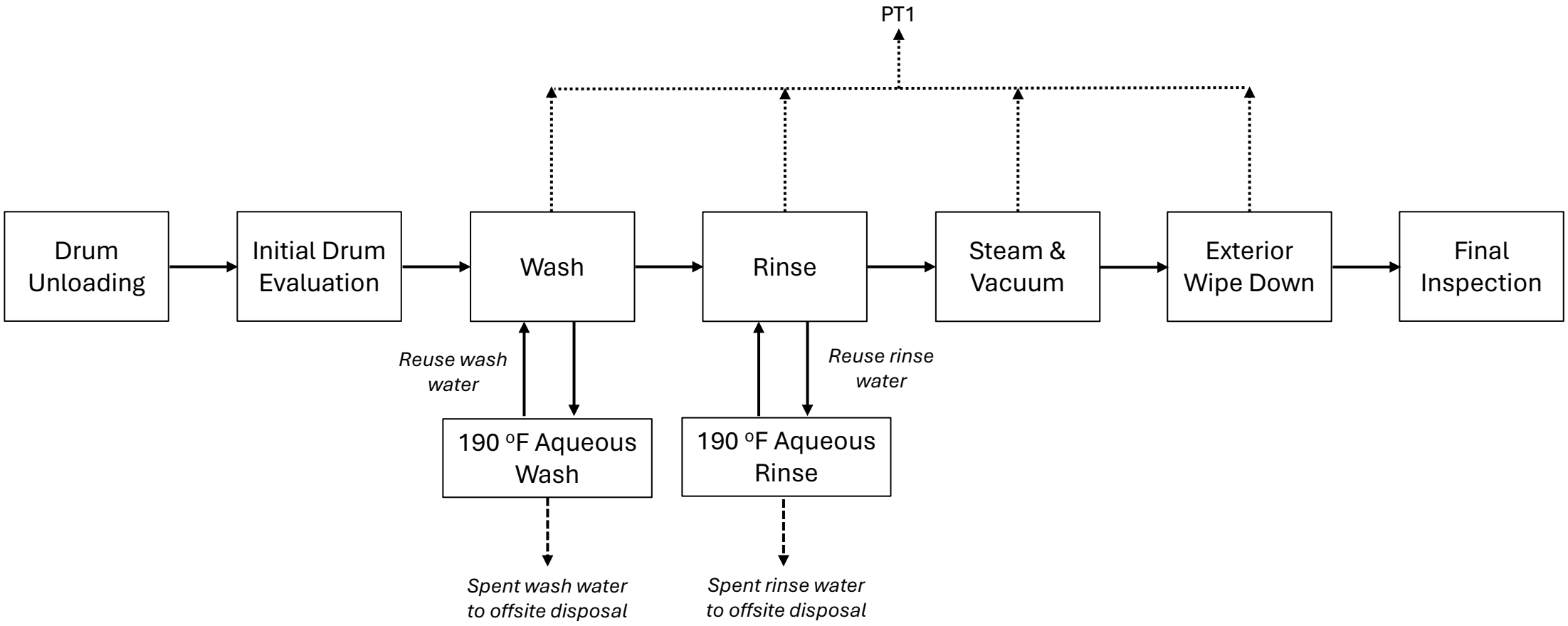
Current Permit Limit:		
Maximum Emission Factor:	0.0291	lbs VOC/drum
Maximum Annual Production:	187,200	drums/year
Maximum Annual Emissions:	5,448	lbs VOC/year
	2.72	tons VOC/year
Change in Annual Emissions:	0.58	tons VOC/year (U1, OS1)
TOTAL Annual Emissions:	6.72	tons VOC/year (U1, OS Summary)

Determination of 7:27-16.16 Range:

Ethanol	<1.0	psi vapor pressure (max per permit application PCP190002 dated 8/28/2019)
	0.034%	percent by volume exhaust (max from stack test of 337 ppmvd)
	3,500-7,000	CFM exhaust from sources

NJAC 7:27-16.16 Range	A	
Allowable	3.5	lbs VOC/hour

Figure 1
Drum Line Process Flow Diagram (U1, OS1)
Industrial Container Services, LLC
Camden, NJ Facility - Program Interest # 51924



INDUSTRIAL CONTAINER SERVICES, LLC (51924)

Date: 5/1/2024

New Jersey Department of Environmental Protection
Reason for Application

Permit Being Modified

Permit Class: PCP **Number:** 190002

Description of Modifications: Modification to revise hourly emission rates for U1 OS1 based on recent stack testing results and revised production rates (see attachments for full description and emission calculations).

Note - VOC increase for U1 OS0 due to 0.58 tpy increase for OS1:
OS1: 2.72 tpy + 0.58 tpy = 3.3 tpy;
OS2: 2.62 tpy (no change)
OS3: 0,8 tpy (no change)
OS0: 6.72 tpy (increase of 0.58 tpy)

New Jersey Department of Environmental Protection
Facility Profile (General)

Facility Name (AIMS): INDUSTRIAL CONTAINER SERVICES, LL **Facility ID (AIMS):** 51924

Street Address: 267 JEFFERSON AVE
CAMDEN, NJ 08104

Mailing Address: 267 JEFFERSON AVE
CAMDEN, NJ 08104

State Plane Coordinates:

X-Coordinate:

Y-Coordinate:

Units:

Datum:

Source Org.:

Source Type:

County: Camden

Location Description:

Industry:

Primary SIC:

Secondary SIC:

NAICS:

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: Air Permit Information Contact

Organization: INDUSTRIAL CONTAINER SERVICES, LLC **Org. Type:** Corporation

Name: DOMENICA TALVACCHIO **NJ EIN:**

Title: PLANT MANAGER

Phone: ( ) - x **Mailing Address:** 267 JEFFERSON St
CAMDEN, NJ 08104

Fax: ( ) - x

Other: ( ) - x

Type:

Email: DOMENICA.TALVACCHIO@MAUSERPAC

Contact Type: Consultant

Organization: WESTON SOLUTIONS, INC. **Org. Type:** Corporation

Name: Randall Abbuhl **NJ EIN:**

Title: Project Manager

Phone: (732) 417-5810 x **Mailing Address:** 205 CAMPUS DRIVE
EDISON, NJ 08837

Fax: ( ) - x

Other: ( ) - x

Type:

Email: r.abbuhl@westonsolutions.com

Contact Type: Fees/Billing Contact

Organization: INDUSTRIAL CONTAINER SERVICES, LLC **Org. Type:** Corporation

Name: DOMENICA TALVACCHIO **NJ EIN:**

Title: PLANT MANAGER

Phone: ( ) - x **Mailing Address:** 267 JEFFERSON St
CAMDEN, NJ 08104

Fax: ( ) - x

Other: ( ) - x

Type:

Email: DOMENICA.TALVACCHIO@MAUSERPAC

New Jersey Department of Environmental Protection
Facility Profile (General)

Contact Type: **Responsible Official**

Organization: INDUSTRIAL CONTAINER SERVICES, LLC **Org. Type:** Corporation

Name: DOMENICA TALVACCHIO **NJ EIN:**

Title: PLANT MANAGER

Phone: ( ) - x **Mailing Address:** 267 JEFFERSON St
CAMDEN, NJ 08104

Fax: ( ) - x

Other: ( ) - x

Type:

Email: DOMENICA.TALVACCHIO@MAUSERPAC

INDUSTRIAL CONTAINER SERVICES, LLC (51924) Date: 5/1/2024

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
E1	Drum Wash	Poly Drum Wash System,, manually operated	Other Equipment	PCP190002				

INDUSTRIAL CONTAINER SERVICES, LLC (51924)

Date: 5/1/2024

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.		
PT1	Drum Line	Roof vent with a fan	Rectangle	22	25	100	80.0	60.0	100.0	3,500.0	0.0	7,000.0	Up	

INDUSTRIAL CONTAINER SERVICES, LLC (51924)

Date: 5/1/2024

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

U 1 Wash Lines Poly Drum and Poly Tote Washing System

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.
OS1	Drum Wash	Poly Drum Washing	Normal - Steady State	E1		PT1				A	0.0	7,000.0		

51924 INDUSTRIAL CONTAINER SERVICES, LLC Date: 5/1/2024

New Jersey Department of Environmental Protection
Potential to Emit

Subject Item: **U1 Wash Lines**

Operating Scenario: **OS0 Summary**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
VOC (Total)		6.72000000	6.72000000	6.72000000	tons/yr	No

Subject Item: **U1 Wash Lines**

Operating Scenario: **OS1**

Step:

Air Contaminant Category (HAPS)	Fugitive Emissions	Emissions Before Controls	Emissions After Controls	Total Emissions	Units	Alt. Em. Limit
HAPs (Total)		D	D	D	lb/hr	No
VOC (Total)		3.20000000	3.20000000	3.20000000	lb/hr	No

51924 INDUSTRIAL CONTAINER SERVICES - CRC, LLC PCP240001 E2 (Other Equipment)
Print Date: 9/20/2024

Make:	Custom-built by ICS
Manufacturer:	Custom-built by ICS
Model:	Custom-built by ICS
Equipment Type:	Washing system including water pumps and nozzles, PVC pipelines and two rinse stations.
Capacity:	15.00
Units:	other units
Description:	tote/hour

Have you attached a diagram showing the location and/or the configuration of this equipment?

- (●) Yes
- ( ) No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

- ( ) Yes
- (●) No

Comments: Poly Tote Wash System is a mannually operated container washing system including two washing stations. Emissions are expected to be released when the totes are uncapped and washed with water. Emissions are the residue vapor inside the totes.

51924 INDUSTRIAL CONTAINER SERVICES - CRC, LLC PCP240001 E3 (Other Equipment)
Print Date: 9/20/2024

Make:	Custom-built by ICS
Manufacturer:	Custom-built by ICS
Model:	Custom-built by ICS
Equipment Type:	Custom built, including mannually operated rags and cleaning solution
Capacity:	936.00
Units:	gal/yr
Description:	

Have you attached a diagram showing the location and/or the configuration of this equipment?

- (○) Yes
- (●) No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

- (○) Yes
- (●) No

Comments: E3-Wipe Station is a manually operated poly drum surface wipe station. The wiping process is a manual surface cleaning of poly drums using rags and cleaning solvent to improve appearance of the drum exterior.

51924 INDUSTRIAL CONTAINER SERVICES - CRC, LLC PCP240001 E1 (Other Equipment)
Print Date: 9/20/2024

Make:	Custom-built by ICS
Manufacturer:	Custom-built by ICS
Model:	Custom-built by ICS
Equipment Type:	Washing system including water pumps, PVC pipelines, six spray nozzles and vaccumes
Capacity:	80.00
Units:	other units
Description:	drum/hour

Have you attached a diagram showing the location and/or the configuration of this equipment?

- (●) Yes
- ( ) No

Have you attached any manuf.'s data or specifications to aid the Dept. in its review of this application?

- ( ) Yes
- (●) No

Comments: Poly Drum Wash System is a mannually operated washing system including six water spray nozzles. Emissions are expected to be released when poly drums are uncapped and washed by water from nozzles. Emissions are the residue vapor inside the drums.

Volume of Gas Discharged from this Source (acfm):	30.00

51924 INDUSTRIAL CONTAINER SERVICES - CRC, LLC PCP240001 U1 OS1 (Raw Material)
Print Date: 9/20/2024

Raw Material	CAS Number	Physical State	Molecular Weight (lbs/lbs-mole)	Does the Material Contain VOC?	Weight Fraction (%)	Vapor Pressure @ 70°F (mmHg)	Organic Density	Units
Organic Liquids		Liquid		Yes				lb/gal

Volume of Gas Discharged from this Source (acfm):	28.00

51924 INDUSTRIAL CONTAINER SERVICES - CRC, LLC PCP240001 U1 OS2 (Raw Material)
Print Date: 9/20/2024

Raw Material	CAS Number	Physical State	Molecular Weight (lbs/lbs-mole)	Does the Material Contain VOC?	Weight Fraction (%)	Vapor Pressure @ 70°F (mmHg)	Organic Density	Units
Ethylene glycol	00107-21-1	Liquid	62.07	Yes				
Organic Liquids		Liquid		Yes				

Volume of Gas Discharged from this Source (acfm):	30.00

51924 INDUSTRIAL CONTAINER SERVICES - CRC, LLC PCP240001 U1 OS3 (Raw Material)
Print Date: 9/20/2024

Raw Material	CAS Number	Physical State	Molecular Weight (lbs/lbs-mole)	Does the Material Contain VOC?	Weight Fraction (%)	Vapor Pressure @ 70°F (mmHg)	Organic Density	Units
Non-HAP Cleaning Solvent		Liquid		Yes				

Date		06/27/23	06/27/23	06/27/23		
Run ID		1 M 1-4	2 M 1-4	3 M 1-4		
Start Time		13:00	14:50	16:39		
Finish Time		14:00	15:50	17:39		
Parameter	**UOM**				**Average**	
Oxygen	%	20.93	20.92	20.92	**20.92**	
Carbon Dioxide	%	0.02	0.04	0.03	**0.03**	
Moisture	%	3.90	3.90	3.70	**3.83**	
Temperature	^{o} F	85.8	86.8	84.0	**85.5**	
Volumetric Flow	ACFM	5,401	5,374	5,356	**5,377**	
Volumetric Flow	DSCFM	4,992	4,963	4,985	**4,980**	
Sample Volume	dscf	31.596	31.515	31.761	**31.624**	
Emission Rates						**Permit Limits**
(as Methane)						
Total Hydrocarbons	ppmvw	324.1	295.6	310.4	**310.0**	
Total Hydrocarbons	ppmvd	337.3	307.5	322.3	**322.4**	
Mass Flow	lbs/hr	4.19	3.80	4.00	**3.99**	**2.33**

From: Abbuhl, Randall L.
To: Yalartai, Bennett [DEP]
Cc: Peter DiPasca; Deal, Diann; Lehberger, Art [DEP]; Agrawal, Sunila [DEP]
Subject: [EXTERNAL] RE: RE: Industrial Container Services - Program Interest ID 51924; PCP 240001
Date: Tuesday, May 14, 2024 3:55:28 PM
Attachments: image008.png
image001.png

Bennett – please see Table 1 included with the cover letter attached with the RADIUS permit application submittal for backup emission calculations. The proposed hourly emission rate was determined from the average stack testing rate of 3.99 lbs/hour and average processing rate of 82 drums per hour for an emission factor of 0.0489 lbs VOC/drum processed:

3.99 lbs VOC/hour / 82 drums/hour = 0.0489 lbs VOC/hour

The proposed maximum hourly VOC emission rate of 3.2 lbs/hour was determined based on the revised maximum processing rate of 65 drums per hour emission:

65 lbs/drum processed x 0.0489 lbs VOC/drum processed = 3.2 lbs VOC/hour

The Subchapter 16.16 Range was determined based on the VOC stack concentration from the stack testing and the maximum VOC vapor pressure from the process as determined in the previous permit application (PCP190002) – from Table 1:

Determination of 7:27-16.16 Range:

Ethanol	<1.0	psi vapor pressure (max per permit application PCP190002 dated 8/28/2019)
	0.034%	percent by volume exhaust (max from stack test of 337 ppmvd)
	3,500-7,000	CFM exhaust from sources
NJAC 7:27-16.16 Range		A
Allowable		3.5 lbs VOC/hour

Thus, the proposed maximum VOC emission rate of 3.2 lbs/hour is in compliance with the maximum allowable VOC emission rate of 3.5 lbs/hour for Range A per NJAC 7:27-16.16.

Please let me know if you have any questions or need any further information.

Thank you for your efforts in processing this permit application.

Randy Abbuhl
Weston Solutions, Inc.
609-577-2343

From: Yalartai, Bennett [DEP] <Bennett.Yalartai@dep.nj.gov>
Sent: Tuesday, May 14, 2024 2:00 PM
To: Abbuhl, Randall L. <R.Abbuhl@WestonSolutions.com>
Cc: Peter DiPasca <peter.dipasca@mauserpackaging.com>; Deal, Diann <Diann.Deal@WestonSolutions.com>; Lehberger, Art [DEP] <Art.Lehberger@dep.nj.gov>; Agrawal, Sunila [DEP] <Sunila.Agrawal@dep.nj.gov>
Subject: RE: RE: Industrial Container Services - Program Interest ID 51924; PCP 240001

Hi Randall,

The proposed permit medication is missing a compliance determination of the emissions standards of VOC rule N.J.A.C. 7:27-16.16 (Sub 16.16). Therefore, pls review Sub16.16 and submit a compliance determination within the context of the RACT *maximum allowable VOC emission rate*, **based on the VOC average stack test result of 3.99 lb/hr**.

Pls submit the requested info asap, on/or before Friday, May, 17, 2024.

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

From: Abbuhl, Randall L. <R.Abbuhl@WestonSolutions.com>
Sent: Monday, May 13, 2024 3:44 PM
To: Yalartai, Bennett [DEP] <Bennett.Yalartai@dep.nj.gov>
Cc: Peter DiPasca <peter.dipasca@mauserpackaging.com>; Deal, Diann <Diann.Deal@WestonSolutions.com>
Subject: [EXTERNAL] RE: Industrial Container Services - Program Interest ID 51924; PCP 240001

Bennett – I was checking on-line today to make sure that the permit application for the drum washing line at the Industrial Container Services (ISC) facility was uploaded and in the NJDEM system. I discovered that the application is identified as having an Administrative Deficiency. If you could let me know what the issue is, we can work to correct the deficiency as expeditiously as possible. Feel free to reach out to me if you have any other questions while reviewing the permit application.

Thanks

Randy Abbuhl
Weston Solutions
609-577-2343

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