WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION (OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

☐ **CONSTRUCTION** ☐ **MODIFICATION** ☐ **RELOCATION**
☐ **CLASS I ADMINISTRATIVE UPDATE** ☐ **TEMPORARY**
☒ **CLASS II ADMINISTRATIVE UPDATE** ☐ **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

☐ **ADMINISTRATIVE AMENDMENT** ☐ **MINOR MODIFICATION**
☐ **SIGNIFICANT MODIFICATION**

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant *(as registered with the WV Secretary of State's Office):*
Allied OFS, LLC

2. Federal Employer ID No. ***(FEIN):***
81-2169190

3. Name of facility *(if different from above):*
Allied - Bridgeport

4. The applicant is the:
☐ **OWNER** ☐ **OPERATOR** ☒ **BOTH**

5A. Applicant's mailing address:
1036 E. Main Street
Bridgeport, WV 26330

5B. Facility's present physical address:
1036 E. Main Street
Bridgeport, WV 26330

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? ☐ **YES** ☒ **NO**
- If **YES,** provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A.**
- If **NO,** provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A.**

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site?* ☒ **YES** ☐ **NO**
- If **YES,** please explain: Applicant is leasing the land at the site and is the sole operator of the facility, including ownership of the bulk cement plant.
- If **NO,** you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): Bulk Cement storage, mixing, and loading plant

10. North American Industry Classification System **(NAICS)** code for the facility:
213112

11A. DAQ Plant ID No. (for existing facilities only):
033 – 00190

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
R13-2862A

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction** or **Relocation permits,** please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

Take Highway 50 (Main Street) east from IH-79, through Bridgeport. Facility is located on south side of Highway 50 (E. Main Street), west of the intersection with State Highway 76.

12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
1036 E. Main Street Bridgeport, WV 26330	Bridgeport	Harrison
12.E. UTM Northing (KM): 4348.636	12F. UTM Easting (KM): 566.253	12G. UTM Zone: 17 S

13. Briefly describe the proposed change(s) at the facility:
Addition of two bulk cement silos, as well as increasing the permitted maximum quantity of cement to be processed through the plant from 800,000 sacks per year to 1,000,000 sacks per year.

14A. Provide the date of anticipated installation or change:	14B. Date of anticipated Start-Up if a permit is granted:
– If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: 10/07/2016 (Silos Installed but not operational)	11/30/2016

14C. Provide a **Schedule** of the planned **Installation** of/**Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved). Only change/start-up is two silos with dates provided above.

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? ☒ **YES** ☐ **NO**

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process *(if known).* A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance *(if known).* Provide this information as **Attachment D.** N/A

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan,** e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to ***Plot Plan Guidance***) .
– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F.**

23. Provide a **Process Description** as **Attachment G.**
– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H.**

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I.**

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J.**

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K.**

28. Check all applicable **Emissions Unit Data Sheets** listed below:

☐ Bulk Liquid Transfer Operations	☒ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☒ Storage Tanks
☐ Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	

☒ General Emission Unit, specify Cement Bulk Mixing Plant

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☐ Baghouse	☐ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System

☒ Other Collectors, specify: Dust collectors on cement waste tank and scale tank.

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N,** or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O.**

➢ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and ***Example Legal Advertisement*** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

☐ **YES** ☒ **NO**

➢ If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's ***"Precautionary Notice – Claims of Confidentiality"*** guidance found in the ***General Instructions*** as **Attachment Q.**

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

☐ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned ☒ **Responsible Official** / ☐ **Authorized Representative,** hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE _____ *(Please use blue ink)* DATE: 10/25/16 *(Please use blue ink)*

35B. Printed name of signee: Brian Lochkos		35C. Title: CFO
35D. E-mail: brian.lochkos@alliedservices.com	36E. Phone: 817-584-2647	36F. FAX:
36A. Printed name of contact person (if different from above): Mike Farnsworth		36B. Title: Corporate HSE Manager
36C. E-mail: Mike.Farnsworth@alliedservices.com	36D. Phone: 304-626-3078	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- ☒ **Attachment A: Business Certificate**
- ☒ **Attachment B: Map(s)**
- ☐ **Attachment C: Installation and Start Up Schedule**
- ☐ **Attachment D: Regulatory Discussion**
- ☒ **Attachment E: Plot Plan**
- ☒ **Attachment F: Detailed Process Flow Diagram(s)**
- ☒ **Attachment G: Process Description**
- ☒ **Attachment H: Material Safety Data Sheets (MSDS)**
- ☒ **Attachment I: Emission Units Table**
- ☒ **Attachment J: Emission Points Data Summary Sheet**
- ☒ **Attachment K: Fugitive Emissions Data Summary Sheet**
- ☒ **Attachment L: Emissions Unit Data Sheet(s)**
- ☒ **Attachment M: Air Pollution Control Device Sheet(s)**
- ☒ **Attachment N: Supporting Emissions Calculations**
- ☒ **Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans**
- ☒ **Attachment P: Public Notice**
- ☐ **Attachment Q: Business Confidential Claims**
- ☐ **Attachment R: Authority Forms**
- ☐ **Attachment S: Title V Permit Revision Information**
- ☒ **Application Fee**

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- ☐ ***Forward 1 copy of the application to the Title V Permitting Group and:***
- ☐ ***For Title V Administrative Amendments:***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit,***
- ☐ ***For Title V Minor Modifications:***
  - ☐ ***Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit.***
- ☐ ***For Title V Significant Modifications processed in parallel with NSR Permit revision:***
  - ☐ ***NSR permit writer should notify a Title V permit writer of draft permit,***
  - ☐ ***Public notice should reference both 45CSR13 and Title V permits,***
  - ☐ ***EPA has 45 day review period of a draft permit.***

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A

BUSINESS CERTIFICATE

STATE OF WEST VIRGINIA
State Tax Department, Revenue Division
P. O. Box 2666
Charleston, WV 25330-2666

Earl Ray Tomblin, Governor **Mark W. Matkovich, Tax Commissioner**

ALLIED OFS, LLC
420 THROCKMORTON ST STE 200
FORT WORTH TX 76102-3755

Letter Id: L1273700160
Issued: 07/27/2016
Account #: 2331-1359

RE: Business Registration Certificate

The West Virginia State Tax Department would like to thank you for registering your business. Enclosed is your Business Registration Certificate. This certificate shall be permanent until cessation of business or until suspended, revoked or cancelled. Changes in name, ownership or location are considered a cessation of business; a new Business Registration Certificate and applicable fees are required. Please review the certificate for accuracy.

This certificate must be prominently displayed at the location for which issued. Engaging in business without conspicuously posting a West Virginia Business Registration Certificate in the place of business is a crime and may subject you to fines per W.Va. Code § 11-9.

When contacting the State Tax Department, refer to the appropriate account number listed on the back of this page. The taxes listed may not be all the taxes for which you are responsible. Account numbers for taxes are printed on the tax returns mailed by the State Tax Department. Failure to timely file tax returns may result in penalties for late filing.

Should the nature of your business activity or business ownership change, your liability for these and other taxes will change accordingly.

To learn more about these taxes and the services offered by the West Virginia State Tax Department, visit our web site at www.tax.wv.gov.

Enclosure

atL006 v.4

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
ALLIED OFS, LLC
1036 E MAIN ST
BRIDGEPORT, WV 26330-1890

BUSINESS REGISTRATION ACCOUNT NUMBER: **2331-1359**

This certificate is issued on: **07/27/2016**

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L1273700160

STATE OF WEST VIRGINIA
State Tax Department, Revenue Division
P. O. Box 2666
Charleston, WV 25330-2666

Earl Ray Tomblin, Governor

Mark W. Matkovich, Tax Commissioner

00006602010000

ALLIED OFS, LLC
420 THROCKMORTON ST STE 200
FORT WORTH TX 76102-3755

Letter Id: L1273700160
Issued: 07/27/2016
Account #: 2331-1359

RE: Business Registration Certificate

The West Virginia State Tax Department would like to thank you for registering your business. Enclosed is your Business Registration Certificate. This certificate shall be permanent until cessation of business or until suspended, revoked or cancelled. Changes in name, ownership or location are considered a cessation of business; a new Business Registration Certificate and applicable fees are required. Please review the certificate for accuracy.

This certificate must be prominently displayed at the location for which issued. Engaging in business without conspicuously posting a West Virginia Business Registration Certificate in the place of business is a crime and may subject you to fines per W.Va. Code § 11-9.

When contacting the State Tax Department, refer to the appropriate account number listed on the back of this page. The taxes listed may not be all the taxes for which you are responsible. Account numbers for taxes are printed on the tax returns mailed by the State Tax Department. Failure to timely file tax returns may result in penalties for late filing.

Should the nature of your business activity or business ownership change, your liability for these and other taxes will change accordingly.

To learn more about these taxes and the services offered by the West Virginia State Tax Department, visit our web site at www.tax.wv.gov.

Enclosure

atL006 v.4

Save a stamp and your time. You can now view, file and pay taxes at https://mytaxes.wvtax.gov
More taxes will be available for online access in the future.

TAX	FILING FREQUENCY	ACCOUNT NUMBER
Business Registration Tax		2331-1359
Combined Sales & Use Tax	Combined Sales & Use Monthly	2333-7877
Pass Through Entity Tax	Partnership Annual	2331-1360


00006602020000

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
ALLIED OFS, LLC
1036 E MAIN ST
BRIDGEPORT, WV 26330-1890

BUSINESS REGISTRATION ACCOUNT NUMBER: **2331-1359**

This certificate is issued on: 07/27/2016

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

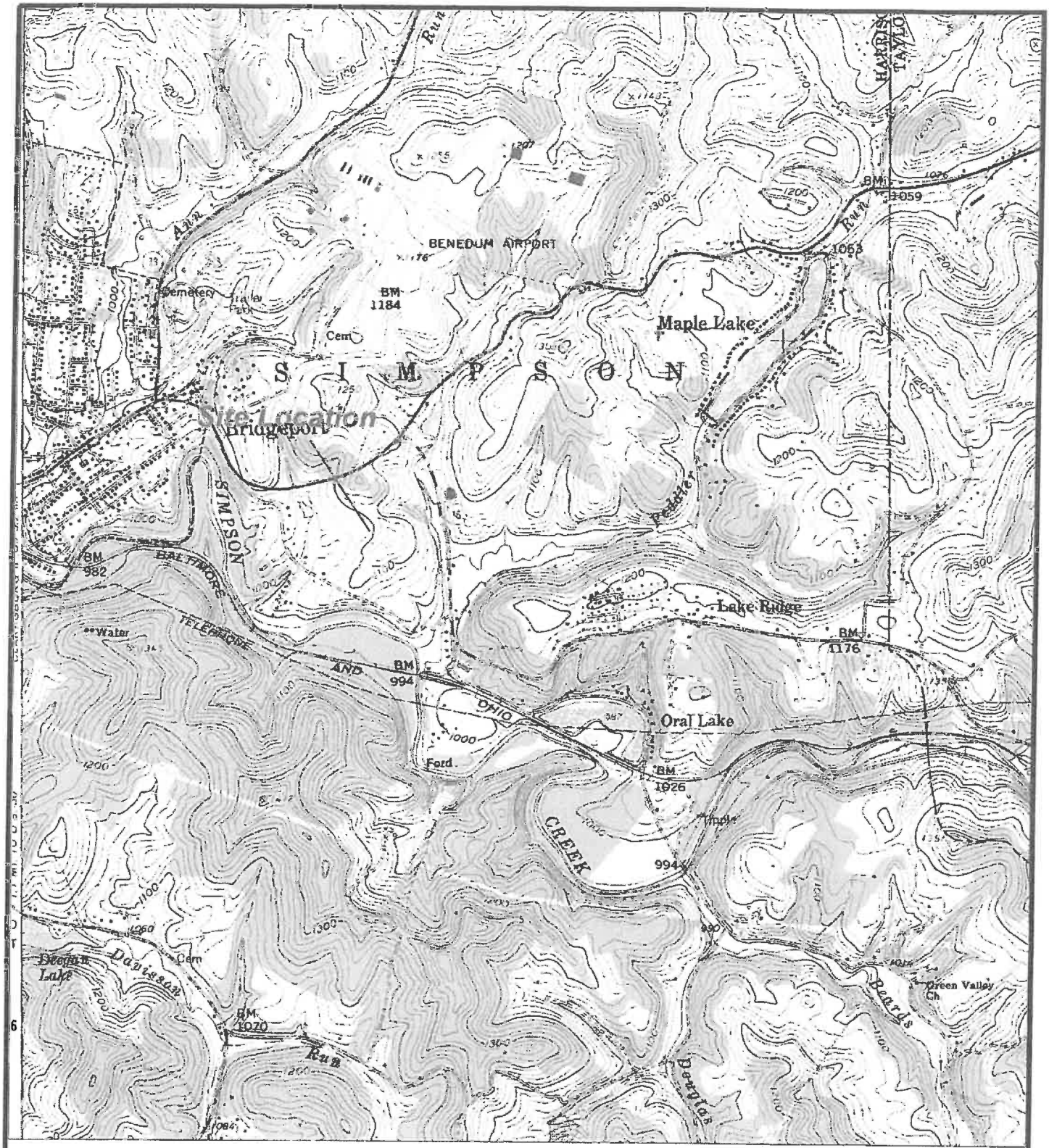
Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L1273700160

ATTACHMENT B

MAP



N

W E

S

Scale: 1" = 2000'
Approximate

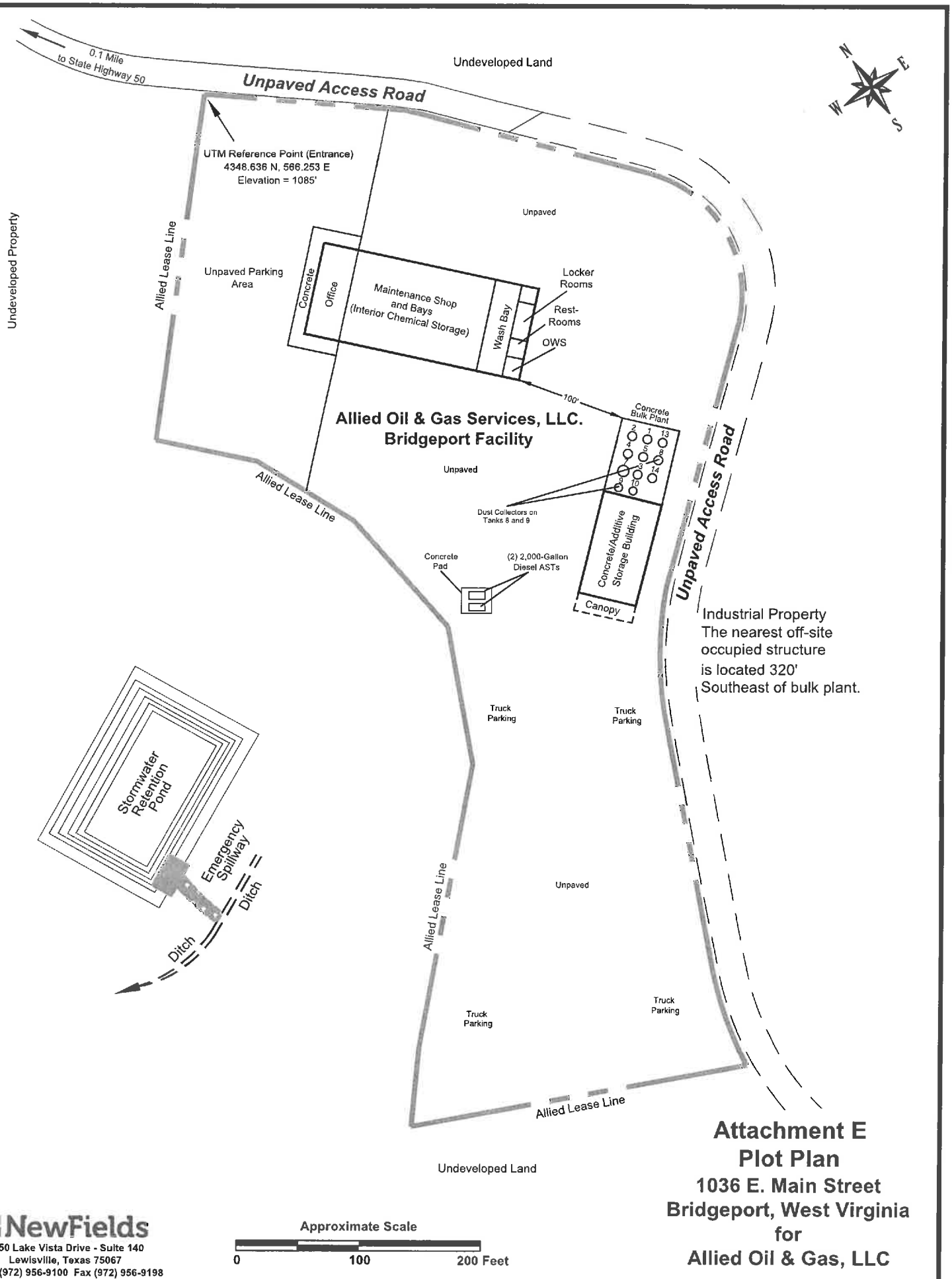
Source: USGS 7.5' Topographic Quadrangle
Clarksburg, West Virginia 1958, Photorevised 1976
Rosemont, West Virginia 1960, Photorevised 1976

NewFields
2850 Lake Vista Drive - Suite 140
Lewisville, Texas 75067
Office (972) 956-9100 Fax (972) 956-9198

Attachment B
Map
1036 E. Main Street
Bridgeport, West Virginia
for
Allied Oil & Gas, LLC

ATTACHMENT E

PLOT PLAN



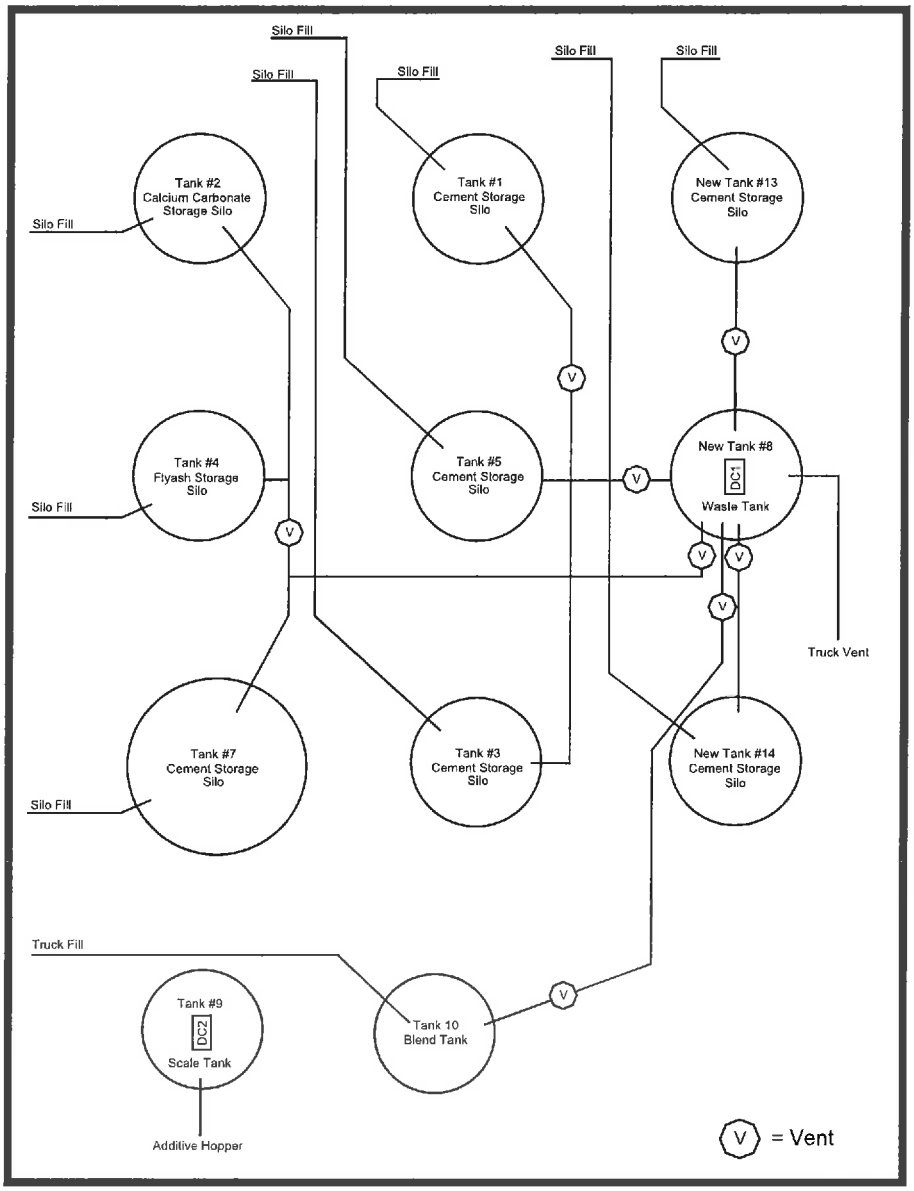
Attachment E
Plot Plan
1036 E. Main Street
Bridgeport, West Virginia
for
Allied Oil & Gas, LLC

Approximate Scale
0 100 200 Feet

NewFields
2850 Lake Vista Drive - Suite 140
Lewisville, Texas 75067
Office (972) 956-9100 Fax (972) 956-9198

ATTACHMENT F

PROCESS FLOW DIAGRAM



Attachment F
Simplified Process Flow Diagram
1036 E. Main Street
Bridgeport, West Virginia
for
Allied Oil & Gas, LLC

NewFields
2850 Lake Vista Drive - Suite 140
Lewisville, Texas 75067
Office (972) 956-9100 Fax (972) 956-9198

ATTACHMENT G

PROCESS DESCRIPTION

Description of Process Flow

1) Cement delivery trucks will unload into specific storage silos.
2) Cement product will be transferred from the specific storage silos to the blend tank.
3) From the blend tank, it will be sent to the scale tank.
4) At the scale tank, it will be mixed with dry bulk chemicals.
5) Once mixed, it will return to the blend tank, where it will be blended.
6) Once blended, it will be transferred to a bulk truck from the blend tank.
7) All exhaust will be vented through dust collectors.

NOTE THAT THE TWO DUST COLLECTORS (ON THE WASTE TANK AND THE SCALE TANK) ARE INHERENT TO THE PROCESS TO ENSURE MINIMAL LOSS OF PRODUCT. THE PLANT WILL NOT BE OPERATED WITHOUT THESE CONTROL DEVICES OPERATIONAL.

Bulk Plant Operation Procedure

1) Inspect air compressors and all piping and valves.
2) Start compressors.
3) Inspect all valves, open air inlet valves to tanks as needed; turn on exhaust vent on dust collector and open vent valves.
4) Place measured amounts of materials into scale tank.
5) Transfer over to blend tank and blend.
6) Hook bulk truck to transfer line and vent line.
7) Transfer onto bulk truck.
8) Repeat as needed for job order.
9) Shut down compressors, release pressure from silos through waste tank and dust collector, close all valves.
10) Unhook bulk truck.

ATTACHMENT H

MATERIAL SAFETY DATA SHEETS

ATTACHMENT I

EMISSION UNITS TABLE

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
1S	1E	Cement Storage Silo	2010	94 tons	No Change	1C
2S	1E	Calcium Carbonate Storage Silo	2010	94 tons	No Change	1C
3S	IE	Cement Storage Silo	2010	94 tons	No Change	1C
4S	1E	Fly Ash Storage Silo	2010	94 tons	No Change	1C
5S	1E	Cement Storage Silo	2010	94 tons	No Change	1C
6S	1E	Barite Storage Silo	2010	35 tons	Removal	1C
7S	1E	Cement Storage Silo	2010	141 tons	No Change	1C
8S	1E	Waste Tank	2014	120 tons	No Change	1C
9S	2E	Scale Tank	2010	9.4 tons	No Change	2C
10S	1E	Blend Tank	2010	9.4 tons	No Change	1C
11S	3E	2,000-Gallon Diesel Tank	2014	2000 gal.	No Change	N/A
12S	4E	2,000-Gallon Diesel Tank	2014	2000 gal.	No Change	N/A
13S	1E	Cement Storage Silo	2016	122 tons	New	1C
14S	1E	Cement Storage Silo	2016	122 tons	New	1C

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

ATTACHMENT J

EMISSIONS POINT DATA SUMMARY SHEET

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. *(Must match Emission Units Table & Plot Plan)*	Emission Point Type[1]	Emission Unit Vented Through This Point *(Must match Emission Units Table & Plot Plan)*		Air Pollution Control Device *(Must match Emission Units Table & Plot Plan)*		Vent Time for Emission Unit *(chemical processes only)*		All Regulated Pollutants - Chemical Name/CAS[3] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions [4]		Maximum Potential Controlled Emissions [5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used [6]	Emission Concentration [7] (ppmv or mg/m^4)
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
1E	Horiz. Vent	1-8S, 10S, 13S, 14S	Silos/ Waste Tank	1C	Cartridge Dust Collector	N/A	N/A	PM PM10	117 48	69.7 31.7	1.17 0.48	0.697 0.317	Solid	EE	N/A
2E	Down. Vertical Vent	9S	Scale Tank	2C	Bag House	N/A	N/A	PM PM10	0.068 0.039	0.11 0.07	0.00068 0.00039	0.0011 0.0007	Solid	EE	N/A
3E	Relief	11S	Diesel Tank	N/A	N/A	N/A	N/A	VOCs	7.8E-5	0.0005	7.8E-5	0.0005	Vapor	EE	N/A
4E	Relief	12S	Diesel Tank	N/A	N/A	N/A	N/A	VOCs	7.8E-5	0.0005	7.8E-5	0.0005	Vapor	EE	N/A

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

[1] Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

[2] Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

[3] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, and Noble Gases.

[4] Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[6] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

[7] Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data								
Emission Point ID No. *(Must match Emission Units Table)*	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow [1] (acfm) *at operating conditions*	Velocity (fps)	Ground Level *(Height above mean sea level)*	Stack Height [2] *(Release height of emissions above ground level)*	Northing	Easting
1E	1.33	Ambient	3,000	36	1085'	36.5'	4348.503	566.319
2E	0.42	Ambient	236		1085'	15'	4348.503	566.319
3E					1083'	6'	4348.484	566.269
4E					1083'	6'	4348.484	566.269

[1] Give at operating conditions. Include inerts.
[2] Release height of emissions above ground level.

ATTACHMENT K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? ☒ Yes ☐ No ☐ If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? ☐ Yes ☒ No ☐ If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? ☐ Yes ☒ No ☐ If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? ☐ Yes ☒ No ☐ If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS [1]	Maximum Potential Uncontrolled Emissions [2]		Maximum Potential Controlled Emissions [3]		Est. Method Used [4]
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads						
Unpaved Haul Roads	PM	12.55	7.25	3.77	2.18	EE
	PM10	5.65	3.26	1.70	0.99	
Storage Pile Emissions						
Loading/Unloading Operations						
Wastewater Treatment Evaporation & Operations						
Equipment Leaks						
General Clean-up VOC Emissions						
Other						

[1] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. DO NOT LIST H_2, H_2O, N_2, O_2, and Noble Gases.

[2] Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[3] Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[4] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT L

EMISSION UNIT DATA SHEETS

1) General Data Sheet (Cement Bulk Plant)
2) First 2,000-Gallon Diesel Storage Tank
3) Second 2,000-Gallon Diesel Storage Tank
4) Unpaved Haul Roads

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): 1S - 10S, 13S, 14S

1. Name or type and model of proposed affected source: Cement Bulk Mixing Plant (see Appendix F and G for more description)
2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.
3. Name(s) and maximum amount of proposed process material(s) charged per hour: Maximum of 250 sacks of concrete powder and 50 sacks of cement supplements used per hour
4. Name(s) and maximum amount of proposed material(s) produced per hour: Maximum of 300 sacks of concrete mixture prepared per hour (see Appendix N for detail)
5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants: N/A

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

N/A

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

(c) Theoretical combustion air requirement (ACF/unit of fuel):

@ °F and psia.

(d) Percent excess air:

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

(g) Proposed maximum design heat input: × 10^6 BTU/hr.

7. Projected operating schedule:

Hours/Day	24 (max)	Days/Week	7 (max)	Weeks/Year	52 (max)

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ °F and psia

a.	NO_X		lb/hr		grains/ACF
b.	SO_2		lb/hr		grains/ACF
c.	CO		lb/hr		grains/ACF
d.	PM_{10}	48 (Note that control device is inherent to operation)	lb/hr	1.9 (Note that control device is inherent to operation)	grains/ACF
e.	Hydrocarbons		lb/hr		grains/ACF
f.	VOCs		lb/hr		grains/ACF
g.	Pb		lb/hr		grains/ACF
h.	Specify other(s)				
	PM	117 (Note that control device is inherent to operation)	lb/hr	4.6 (Note that control device is inherent to operation)	grains/ACF
			lb/hr		grains/ACF
			lb/hr		grains/ACF
			lb/hr		grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
3000 ACFM maximum flow rate	None
REPORTING	**TESTING**
None	None

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

See Attachments G and O for operation and maintenance procedures, as well as Attachment M for additional manufacturer information regarding the dust collector.

Attachment L
EMISSIONS UNIT DATA SHEET
STORAGE TANKS

Provide the following information for each new or modified bulk liquid storage tank as shown on the *Equipment List Form* and other parts of this application. A tank is considered modified if the material to be stored in the tank is different from the existing stored liquid.

IF USING US EPA'S TANKS EMISSION ESTIMATION PROGRAM (AVAILABLE AT www.epa.gov/tnn/tanks.html), APPLICANT MAY ATTACH THE SUMMARY SHEETS IN LIEU OF COMPLETING SECTIONS III, IV, & V OF THIS FORM. HOWEVER, SECTIONS I, II, AND VI OF THIS FORM MUST BE COMPLETED. US EPA'S AP-42, SECTION 7.1, "ORGANIC LIQUID STORAGE TANKS," MAY ALSO BE USED TO ESTIMATE VOC AND HAP EMISSIONS (http://www.epa.gov/tnn/chief/).

I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name Fuel Island	2. Tank Name Tank 1
3. Tank Equipment Identification No. (as assigned on *Equipment List Form*) 11S	4. Emission Point Identification No. (as assigned on *Equipment List Form*) 3E
5. Date of Commencement of Construction (for existing tanks) 2014	
6. Type of change ☐ New Construction ☐ New Stored Material ☐ Other Tank Modification	
7. Description of Tank Modification (if applicable) No Modification from Original Permit Application (Form Submitted Again for Completeness)	
7A. Does the tank have more than one mode of operation? (e.g. Is there more than one product stored in the tank?) ☐ Yes ☒ No	
7B. If YES, explain and identify which mode is covered by this application (Note: A separate form must be completed for each mode).	
7C. Provide any limitations on source operation affecting emissions, any work practice standards (e.g. production variation, etc.):	

II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-sectional area multiplied by internal height. 2,000 gallons	
9A. Tank Internal Diameter (ft) 5.33	9B. Tank Internal Height (or Length) (ft) 12
10A. Maximum Liquid Height (ft) 5	10B. Average Liquid Height (ft) 2.5
11A. Maximum Vapor Space Height (ft) 5.33	11B. Average Vapor Space Height (ft) 2.83
12. Nominal Capacity (specify barrels or gallons). This is also known as "working volume" and considers design liquid levels and overflow valve heights. 2,000 gallons	

13A. Maximum annual throughput (gal/yr)	13B. Maximum daily throughput (gal/day)
15,000	500

14. Number of Turnovers per year (annual net throughput/maximum tank liquid volume): 7.5

15. Maximum tank fill rate (gal/min): 200

16. Tank fill method: ☐ Submerged ☒ Splash ☐ Bottom Loading

17. Complete 17A and 17B for Variable Vapor Space Tank Systems ☒ Does Not Apply

17A. Volume Expansion Capacity of System (gal)	17B. Number of transfers into system per year

18. Type of tank (check all that apply):
- ☒ Fixed Roof ___ vertical X horizontal ___ flat roof ___ cone roof ___ dome roof ___ other (describe)
- ☐ External Floating Roof ___ pontoon roof ___ double deck roof
- ☐ Domed External (or Covered) Floating Roof
- ☐ Internal Floating Roof ___ vertical column support ___ self-supporting
- ☐ Variable Vapor Space ___ lifter roof ___ diaphragm
- ☐ Pressurized ___ spherical ___ cylindrical
- ☐ Underground
- ☐ Other (describe)

III. TANK CONSTRUCTION & OPERATION INFORMATION (optional if providing TANKS Summary Sheets)

19. Tank Shell Construction: ☐ Riveted ☐ Gunite lined ☐ Epoxy-coated rivets ☐ Other (describe)

20A. Shell Color	20B. Roof Color	20C. Year Last Painted

21. Shell Condition (if metal and unlined): ☐ No Rust ☐ Light Rust ☐ Dense Rust ☐ Not applicable

22A. Is the tank heated? ☐ YES ☐ NO

22B. If YES, provide the operating temperature (°F)

22C. If YES, please describe how heat is provided to tank.

23. Operating Pressure Range (psig): to

24. Complete the following section for **Vertical Fixed Roof Tanks** ☐ Does Not Apply

24A. For dome roof, provide roof radius (ft)

24B. For cone roof, provide slope (ft/ft)

25. Complete the following section for **Floating Roof Tanks** ☐ Does Not Apply

25A. Year Internal Floaters Installed:

25B. Primary Seal Type: (check one) ☐ Metallic (Mechanical) Shoe Seal ☐ Liquid Mounted Resilient Seal ☐ Vapor Mounted Resilient Seal ☐ Other (describe):

25C. Is the Floating Roof equipped with a Secondary Seal? ☐ YES ☐ NO

25D. If YES, how is the secondary seal mounted? (check one) ☐ Shoe ☐ Rim ☐ Other (describe):

25E. Is the Floating Roof equipped with a weather shield? ☐ YES ☐ NO

25F. Describe deck fittings; indicate the number of each type of fitting:		
ACCESS HATCH		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
AUTOMATIC GAUGE FLOAT WELL		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
COLUMN WELL		
BUILT-UP COLUMN – SLIDING COVER, GASKETED:	BUILT-UP COLUMN – SLIDING COVER, UNGASKETED:	PIPE COLUMN – FLEXIBLE FABRIC SLEEVE SEAL:
LADDER WELL		
PIP COLUMN – SLIDING COVER, GASKETED:	PIPE COLUMN – SLIDING COVER, UNGASKETED:	
GAUGE-HATCH/SAMPLE PORT		
SLIDING COVER, GASKETED:	SLIDING COVER, UNGASKETED:	
ROOF LEG OR HANGER WELL		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	SAMPLE WELL-SLIT FABRIC SEAL (10% OPEN AREA)
VACUUM BREAKER		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
RIM VENT		
WEIGHTED MECHANICAL ACTUATION GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
DECK DRAIN (3-INCH DIAMETER)		
OPEN:	90% CLOSED:	
STUB DRAIN		
1-INCH DIAMETER:		
OTHER (DESCRIBE, ATTACH ADDITIONAL PAGES IF NECESSARY)		

26. Complete the following section for Internal Floating Roof Tanks ☐ Does Not Apply			
26A. Deck Type: ☐ Bolted ☐ Welded			
26B. For Bolted decks, provide deck construction:			
26C. Deck seam: ☐ Continuous sheet construction 5 feet wide ☐ Continuous sheet construction 6 feet wide ☐ Continuous sheet construction 7 feet wide ☐ Continuous sheet construction 5 × 7.5 feet wide ☐ Continuous sheet construction 5 × 12 feet wide ☐ Other (describe)			
26D. Deck seam length (ft)		26E. Area of deck (ft^2)	
For column supported tanks: 26F. Number of columns:		26G. Diameter of each column:	

IV. SITE INFORMANTION (optional if providing TANKS Summary Sheets)

27. Provide the city and state on which the data in this section are based.
28. Daily Average Ambient Temperature (°F)
29. Annual Average Maximum Temperature (°F)
30. Annual Average Minimum Temperature (°F)
31. Average Wind Speed (miles/hr)
32. Annual Average Solar Insulation Factor (BTU/(ft^2·day))
33. Atmospheric Pressure (psia)

V. LIQUID INFORMATION (optional if providing TANKS Summary Sheets)

34. Average daily temperature range of bulk liquid:			
34A. Minimum (°F)		34B. Maximum (°F)	
35. Average operating pressure range of tank:			
35A. Minimum (psig)		35B. Maximum (psig)	
36A. Minimum Liquid Surface Temperature (°F)		36B. Corresponding Vapor Pressure (psia)	
37A. Average Liquid Surface Temperature (°F)		37B. Corresponding Vapor Pressure (psia)	
38A. Maximum Liquid Surface Temperature (°F)		38B. Corresponding Vapor Pressure (psia)	
39. Provide the following for <u>each</u> liquid or gas to be stored in tank. Add additional pages if necessary.			
39A. Material Name or Composition			
39B. CAS Number			
39C. Liquid Density (lb/gal)			
39D. Liquid Molecular Weight (lb/lb-mole)			
39E. Vapor Molecular Weight (lb/lb-mole)			

Maximum Vapor Pressure 39F. True (psia) 39G. Reid (psia)			
Months Storage per Year 39H. From 39I. To			

VI. EMISSIONS AND CONTROL DEVICE DATA (required)

40. Emission Control Devices (check as many as apply): ☒ Does Not Apply

- ☐ Carbon Adsorption[1]
- ☐ Condenser[1]
- ☐ Conservation Vent (psig)
  - Vacuum Setting — Pressure Setting
- ☐ Emergency Relief Valve (psig)
- ☐ Inert Gas Blanket of
- ☐ Insulation of Tank with
- ☐ Liquid Absorption (scrubber)[1]
- ☐ Refrigeration of Tank
- ☐ Rupture Disc (psig)
- ☐ Vent to Incinerator[1]
- ☐ Other[1] (describe):

[1] Complete appropriate Air Pollution Control Device Sheet.

41. Expected Emission Rate (submit Test Data or Calculations here or elsewhere in the application).

Material Name & CAS No.	Breathing Loss (lb/hr)	Working Loss Amount	Working Loss Units	Annual Loss (lb/yr)	Estimation Method[1]
Diesel Fuel	0.68 lb/yr 0.000078 lb/hr	0.28	lb/yr	0.97 lb/yr	TANKS

[1] EPA = EPA Emission Factor, MB = Material Balance, SS = Similar Source, ST = Similar Source Test, Throughput Data, O = Other (specify)

☐ Remember to attach emissions calculations, including TANKS Summary Sheets if applicable.

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

Identification

User Identification:	1
City:	Bridgeport
State:	West Virginia
Company:	Allied Oil & Gas
Type of Tank:	Horizontal Tank
Description:	2000 gallon Diesel Tank

Tank Dimensions

Shell Length (ft):		12.00
Diameter (ft):		5.30
Volume (gallons):		2,000.00
Turnovers:		7.50
Net Throughput(gal/yr):		15,000.00
Is Tank Heated (y/n):	N	
Is Tank Underground (y/n):	N	

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Elkins, West Virginia (Avg Atmospheric Pressure = 13.73 psia)

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

1 - Horizontal Tank
Bridgeport, West Virginia

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
Distillate fuel oil no. 2	Jan	44.39	37.57	51.21	52.14	0.0037	0.0031	0.0047	130.0000			188.00	Option 1: VP40 = .0031 VP50 = .0045
Distillate fuel oil no. 2	Feb	46.79	38.68	54.90	52.14	0.0041	0.0031	0.0055	130.0000			188.00	Option 1: VP40 = .0031 VP50 = .0045
Distillate fuel oil no. 2	Mar	52.74	42.82	62.65	52.14	0.0050	0.0035	0.0072	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	Apr	58.15	46.46	69.84	52.14	0.0061	0.0040	0.0090	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	May	63.53	50.66	76.39	52.14	0.0074	0.0046	0.0109	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Jun	67.45	54.21	80.69	52.14	0.0084	0.0053	0.0123	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Jul	68.84	56.25	81.44	52.14	0.0087	0.0057	0.0126	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Aug	67.57	55.82	79.31	52.14	0.0084	0.0057	0.0118	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Sep	63.40	52.90	73.89	52.14	0.0073	0.0051	0.0102	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Oct	56.65	47.22	66.08	52.14	0.0058	0.0041	0.0080	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	Nov	50.83	43.59	58.07	52.14	0.0047	0.0036	0.0061	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	Dec	46.03	39.74	52.32	52.14	0.0039	0.0031	0.0050	130.0000			188.00	Option 1: VP40 = .0031 VP50 = .0045

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

1 - Horizontal Tank
Bridgeport, West Virginia

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0233	0.0274	0.0457	0.0625	0.0843	0.0938	0.0953	0.0857	0.0656	0.0493	0.0294	0.0225
Vapor Space Volume (cu ft):	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0499	0.0598	0.0733	0.0863	0.0944	0.0966	0.0914	0.0851	0.0763	0.0690	0.0525	0.0455
Vented Vapor Saturation Factor:	0.9995	0.9994	0.9993	0.9991	0.9990	0.9988	0.9988	0.9988	0.9990	0.9992	0.9993	0.9994
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255
Tank Diameter (ft):	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000
Effective Diameter (ft):	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011
Vapor Space Outage (ft):	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500
Tank Shell Length (ft):	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Daily Avg. Liquid Surface Temp. (deg. R):	504.0606	506.4586	512.4051	517.8218	523.1974	527.1217	528.5140	527.2351	523.0680	516.3236	510.4976	505.6968
Daily Average Ambient Temp. (deg. F):	27.0500	29.8000	39.6000	48.2000	57.4500	64.8000	68.6500	67.7500	61.7500	50.4000	41.3000	31.9500
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083
Tank Paint Solar Absorptance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sqft day):	612.6484	833.7856	1,138.0475	1,441.9922	1,685.0210	1,813.5153	1,757.3585	1,593.0127	1,308.7388	982.9025	643.7408	515.8810
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0499	0.0598	0.0733	0.0863	0.0944	0.0966	0.0914	0.0851	0.0763	0.0690	0.0525	0.0455
Daily Vapor Temperature Range (deg. R):	27.2888	32.4353	39.6684	46.7515	51.4508	52.9613	50.3801	46.9630	41.9824	37.7225	28.9608	25.1584
Daily Vapor Pressure Range (psia):	0.0016	0.0024	0.0037	0.0050	0.0063	0.0069	0.0068	0.0061	0.0051	0.0039	0.0025	0.0019
Breather Vent Press. Setting Range(psia):	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0031	0.0031	0.0035	0.0040	0.0046	0.0053	0.0057	0.0057	0.0051	0.0041	0.0036	0.0031
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0047	0.0055	0.0072	0.0090	0.0109	0.0123	0.0126	0.0118	0.0102	0.0080	0.0061	0.0050
Daily Avg. Liquid Surface Temp. (deg R):	504.0606	506.4586	512.4051	517.8218	523.1974	527.1217	528.5140	527.2351	523.0680	516.3236	510.4976	505.6968
Daily Min. Liquid Surface Temp. (deg R):	497.2384	498.3497	502.4880	506.1340	510.3347	513.8813	515.9190	515.4944	512.5724	506.8930	503.2574	499.4072
Daily Max. Liquid Surface Temp. (deg R):	510.8828	514.5674	522.3222	529.5097	536.0601	540.3620	541.1090	538.9759	533.5636	525.7542	517.7378	511.9864
Daily Ambient Temp. Range (deg. R):	21.7000	23.0000	25.0000	26.8000	26.9000	25.6000	23.5000	23.1000	23.7000	26.4000	23.2000	21.3000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9995	0.9994	0.9993	0.9991	0.9990	0.9988	0.9988	0.9988	0.9990	0.9992	0.9993	0.9994
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Vapor Space Outage (ft):	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500
Working Losses (lb):	0.0144	0.0157	0.0195	0.0237	0.0286	0.0324	0.0337	0.0325	0.0284	0.0226	0.0181	0.0153
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Net Throughput (gal/mo.):	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000
Annual Turnovers:	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Tank Diameter (ft):	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	0.0376	0.0430	0.0652	0.0863	0.1128	0.1262	0.1290	0.1182	0.0940	0.0718	0.0475	0.0377

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

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

1 - Horizontal Tank
Bridgeport, West Virginia

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	0.28	0.68	0.97

Attachment L
EMISSIONS UNIT DATA SHEET
STORAGE TANKS

Provide the following information for each new or modified bulk liquid storage tank as shown on the *Equipment List Form* and other parts of this application. A tank is considered modified if the material to be stored in the tank is different from the existing stored liquid.

IF USING US EPA'S TANKS EMISSION ESTIMATION PROGRAM (AVAILABLE AT www.epa.gov/ttn/tanks.html), APPLICANT MAY ATTACH THE SUMMARY SHEETS IN LIEU OF COMPLETING SECTIONS III, IV, & V OF THIS FORM. HOWEVER, SECTIONS I, II, AND VI OF THIS FORM MUST BE COMPLETED. US EPA'S AP-42, SECTION 7.1, "ORGANIC LIQUID STORAGE TANKS," MAY ALSO BE USED TO ESTIMATE VOC AND HAP EMISSIONS (http://www.epa.gov/ttn/chief/).

I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name Fuel Island	2. Tank Name Tank 2
3. Tank Equipment Identification No. (as assigned on *Equipment List Form*) 12S	4. Emission Point Identification No. (as assigned on *Equipment List Form*) 4E
5. Date of Commencement of Construction (for existing tanks) 2014	
6. Type of change ☒ New Construction ☐ New Stored Material ☐ Other Tank Modification	
7. Description of Tank Modification (if applicable) No Modification from Original Permit Application (Form Submitted Again for Completeness)	
7A. Does the tank have more than one mode of operation? (e.g. Is there more than one product stored in the tank?) ☐ Yes ☒ No	
7B. If YES, explain and identify which mode is covered by this application (Note: A separate form must be completed for each mode).	
7C. Provide any limitations on source operation affecting emissions, any work practice standards (e.g. production variation, etc.):	

II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-sectional area multiplied by internal height. 2,000 gallons	
9A. Tank Internal Diameter (ft) 5.33	9B. Tank Internal Height (or Length) (ft) 12
10A. Maximum Liquid Height (ft) 5	10B. Average Liquid Height (ft) 2.5
11A. Maximum Vapor Space Height (ft) 5.33	11B. Average Vapor Space Height (ft) 2.83
12. Nominal Capacity (specify barrels or gallons). This is also known as "working volume" and considers design liquid levels and overflow valve heights. 2,000 gallons	

13A. Maximum annual throughput (gal/yr)	13B. Maximum daily throughput (gal/day)
15,000	500

14. Number of Turnovers per year (annual net throughput/maximum tank liquid volume): 7.5

15. Maximum tank fill rate (gal/min): 200

16. Tank fill method: ☐ Submerged ☒ Splash ☐ Bottom Loading

17. Complete 17A and 17B for Variable Vapor Space Tank Systems ☒ Does Not Apply

17A. Volume Expansion Capacity of System (gal)	17B. Number of transfers into system per year

18. Type of tank (check all that apply):

☒ Fixed Roof ___ vertical X horizontal ___ flat roof ___ cone roof ___ dome roof
___ other (describe)

☐ External Floating Roof ___ pontoon roof ___ double deck roof

☐ Domed External (or Covered) Floating Roof

☐ Internal Floating Roof ___ vertical column support ___ self-supporting

☐ Variable Vapor Space ___ lifter roof ___ diaphragm

☐ Pressurized ___ spherical ___ cylindrical

☐ Underground

☐ Other (describe)

III. TANK CONSTRUCTION & OPERATION INFORMATION (optional if providing TANKS Summary Sheets)

19. Tank Shell Construction:

☐ Riveted ☐ Gunite lined ☐ Epoxy-coated rivets ☐ Other (describe)

20A. Shell Color	20B. Roof Color	20C. Year Last Painted

21. Shell Condition (if metal and unlined):

☐ No Rust ☐ Light Rust ☐ Dense Rust ☐ Not applicable

22A. Is the tank heated? ☐ YES ☐ NO

22B. If YES, provide the operating temperature (°F)

22C. If YES, please describe how heat is provided to tank.

23. Operating Pressure Range (psig): to

24. Complete the following section for **Vertical Fixed Roof Tanks** ☐ Does Not Apply

24A. For dome roof, provide roof radius (ft)

24B. For cone roof, provide slope (ft/ft)

25. Complete the following section for **Floating Roof Tanks** ☐ Does Not Apply

25A. Year Internal Floaters Installed:

25B. Primary Seal Type: (check one) ☐ Metallic (Mechanical) Shoe Seal ☐ Liquid Mounted Resilient Seal ☐ Vapor Mounted Resilient Seal ☐ Other (describe):

25C. Is the Floating Roof equipped with a Secondary Seal? ☐ YES ☐ NO

25D. If YES, how is the secondary seal mounted? (check one) ☐ Shoe ☐ Rim ☐ Other (describe):

25E. Is the Floating Roof equipped with a weather shield? ☐ YES ☐ NO

25F. Describe deck fittings; indicate the number of each type of fitting:		
ACCESS HATCH		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
AUTOMATIC GAUGE FLOAT WELL		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
COLUMN WELL		
BUILT-UP COLUMN – SLIDING COVER, GASKETED:	BUILT-UP COLUMN – SLIDING COVER, UNGASKETED:	PIPE COLUMN – FLEXIBLE FABRIC SLEEVE SEAL:
LADDER WELL		
PIP COLUMN – SLIDING COVER, GASKETED:	PIPE COLUMN – SLIDING COVER, UNGASKETED:	
GAUGE-HATCH/SAMPLE PORT		
SLIDING COVER, GASKETED:	SLIDING COVER, UNGASKETED:	
ROOF LEG OR HANGER WELL		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	SAMPLE WELL-SLIT FABRIC SEAL (10% OPEN AREA)
VACUUM BREAKER		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
RIM VENT		
WEIGHTED MECHANICAL ACTUATION GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
DECK DRAIN (3-INCH DIAMETER)		
OPEN:	90% CLOSED:	
STUB DRAIN		
1-INCH DIAMETER:		
OTHER (DESCRIBE, ATTACH ADDITIONAL PAGES IF NECESSARY)		

26. Complete the following section for Internal Floating Roof Tanks ☐ Does Not Apply	
26A. Deck Type: ☐ Bolted ☐ Welded	
26B. For Bolted decks, provide deck construction:	
26C. Deck seam: ☐ Continuous sheet construction 5 feet wide ☐ Continuous sheet construction 6 feet wide ☐ Continuous sheet construction 7 feet wide ☐ Continuous sheet construction 5 × 7.5 feet wide ☐ Continuous sheet construction 5 × 12 feet wide ☐ Other (describe)	
26D. Deck seam length (ft)	26E. Area of deck (ft^2)
For column supported tanks: 26F. Number of columns:	26G. Diameter of each column:

IV. SITE INFORMANTION (optional if providing TANKS Summary Sheets)

27. Provide the city and state on which the data in this section are based.
28. Daily Average Ambient Temperature (°F)
29. Annual Average Maximum Temperature (°F)
30. Annual Average Minimum Temperature (°F)
31. Average Wind Speed (miles/hr)
32. Annual Average Solar Insulation Factor (BTU/(ft^2·day))
33. Atmospheric Pressure (psia)

V. LIQUID INFORMATION (optional if providing TANKS Summary Sheets)

34. Average daily temperature range of bulk liquid:	
34A. Minimum (°F)	34B. Maximum (°F)
35. Average operating pressure range of tank:	
35A. Minimum (psig)	35B. Maximum (psig)
36A. Minimum Liquid Surface Temperature (°F)	36B. Corresponding Vapor Pressure (psia)
37A. Average Liquid Surface Temperature (°F)	37B. Corresponding Vapor Pressure (psia)
38A. Maximum Liquid Surface Temperature (°F)	38B. Corresponding Vapor Pressure (psia)

39. Provide the following for <u>each</u> liquid or gas to be stored in tank. Add additional pages if necessary.			
39A. Material Name or Composition			
39B. CAS Number			
39C. Liquid Density (lb/gal)			
39D. Liquid Molecular Weight (lb/lb-mole)			
39E. Vapor Molecular Weight (lb/lb-mole)			

Maximum Vapor Pressure 39F. True (psia) 39G. Reid (psia)			
Months Storage per Year 39H. From 39I. To			

VI. EMISSIONS AND CONTROL DEVICE DATA (required)

40. Emission Control Devices (check as many as apply): ☒ Does Not Apply

- ☐ Carbon Adsorption[1]
- ☐ Condenser[1]
- ☐ Conservation Vent (psig)
  - Vacuum Setting — Pressure Setting
- ☐ Emergency Relief Valve (psig)
- ☐ Inert Gas Blanket of
- ☐ Insulation of Tank with
- ☐ Liquid Absorption (scrubber)[1]
- ☐ Refrigeration of Tank
- ☐ Rupture Disc (psig)
- ☐ Vent to Incinerator[1]
- ☐ Other[1] (describe):

[1] Complete appropriate Air Pollution Control Device Sheet.

41. Expected Emission Rate (submit Test Data or Calculations here or elsewhere in the application).

Material Name & CAS No.	Breathing Loss (lb/hr)	Working Loss Amount	Working Loss Units	Annual Loss (lb/yr)	Estimation Method[1]
Diesel Fuel	0.68 lb/yr 0.000078 lb/hr	0.28	lb/yr	0.97 lb/yr	TANKS

[1] EPA = EPA Emission Factor, MB = Material Balance, SS = Similar Source, ST = Similar Source Test, Throughput Data, O = Other (specify)

☐ Remember to attach emissions calculations, including TANKS Summary Sheets if applicable.

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

Identification

User Identification:	1
City:	Bridgeport
State:	West Virginia
Company:	Allied Oil & Gas
Type of Tank:	Horizontal Tank
Description:	2000 gallon Diesel Tank

Tank Dimensions

Shell Length (ft):		12.00
Diameter (ft):		5.30
Volume (gallons):		2,000.00
Turnovers:		7.50
Net Throughput(gal/yr):		15,000.00
Is Tank Heated (y/n):	N	
Is Tank Underground (y/n):	N	

Paint Characteristics

Shell Color/Shade:	Gray/Medium
Shell Condition	Good

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Elkins, West Virginia (Avg Atmospheric Pressure = 13.73 psia)

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

1 - Horizontal Tank
Bridgeport, West Virginia

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
Distillate fuel oil no. 2	Jan	44.39	37.57	51.21	52.14	0.0037	0.0031	0.0047	130.0000			188.00	Option 1: VP40 = .0031 VP50 = .0045
Distillate fuel oil no. 2	Feb	46.79	38.68	54.90	52.14	0.0041	0.0031	0.0055	130.0000			188.00	Option 1: VP40 = .0031 VP50 = .0045
Distillate fuel oil no. 2	Mar	52.74	42.82	62.65	52.14	0.0050	0.0035	0.0072	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	Apr	58.15	46.46	69.84	52.14	0.0061	0.0040	0.0090	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	May	63.53	50.66	76.39	52.14	0.0074	0.0046	0.0109	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Jun	67.45	54.21	80.69	52.14	0.0084	0.0053	0.0123	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Jul	68.84	56.25	81.44	52.14	0.0087	0.0057	0.0126	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Aug	67.57	55.82	79.31	52.14	0.0084	0.0057	0.0118	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Sep	63.40	52.90	73.89	52.14	0.0073	0.0051	0.0102	130.0000			188.00	Option 1: VP60 = .0065 VP70 = .009
Distillate fuel oil no. 2	Oct	56.65	47.22	66.08	52.14	0.0058	0.0041	0.0080	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	Nov	50.83	43.59	58.07	52.14	0.0047	0.0036	0.0061	130.0000			188.00	Option 1: VP50 = .0045 VP60 = .0065
Distillate fuel oil no. 2	Dec	46.03	39.74	52.32	52.14	0.0039	0.0031	0.0050	130.0000			188.00	Option 1: VP40 = .0031 VP50 = .0045

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

1 - Horizontal Tank
Bridgeport, West Virginia

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0233	0.0274	0.0457	0.0625	0.0843	0.0938	0.0953	0.0857	0.0656	0.0493	0.0294	0.0225
Vapor Space Volume (cu ft):	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Space Expansion Factor:	0.0499	0.0598	0.0733	0.0863	0.0944	0.0966	0.0914	0.0851	0.0763	0.0690	0.0525	0.0455
Vented Vapor Saturation Factor:	0.9995	0.9994	0.9993	0.9991	0.9990	0.9988	0.9988	0.9988	0.9990	0.9992	0.9993	0.9994
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255	168.6255
Tank Diameter (ft):	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000
Effective Diameter (ft):	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011	9.0011
Vapor Space Outage (ft):	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500
Tank Shell Length (ft):	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000	12.0000
Vapor Density												
Vapor Density (lb/cu ft):	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Daily Avg. Liquid Surface Temp. (deg. R):	504.0606	506.4586	512.4051	517.8218	523.1974	527.1217	528.5140	527.2351	523.0680	516.3236	510.4976	505.6968
Daily Average Ambient Temp. (deg. F):	27.0500	29.8000	39.6000	48.2000	57.4500	64.8000	68.6500	67.7500	61.7500	50.4000	41.3000	31.9500
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083	511.8083
Tank Paint Solar Absorptance (Shell):	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800	0.6800
Daily Total Solar Insulation Factor (Btu/sqft day):	612.6484	833.7856	1,138.0475	1,441.9922	1,685.0210	1,813.5153	1,757.3585	1,593.0127	1,308.7388	982.9025	643.7408	515.8810
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0499	0.0598	0.0733	0.0863	0.0944	0.0966	0.0914	0.0851	0.0763	0.0690	0.0525	0.0455
Daily Vapor Temperature Range (deg. R):	27.2888	32.4353	39.6684	46.7515	51.4508	52.9613	50.3801	46.9630	41.9824	**37.7225**	28.9608	25.1584
Daily Vapor Pressure Range (psia):	0.0016	0.0024	0.0037	0.0050	0.0063	0.0069	0.0068	0.0061	0.0051	0.0039	0.0025	0.0019
Breather Vent Press. Setting Range(psia):	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0031	0.0031	0.0035	0.0040	0.0046	0.0053	0.0057	0.0057	0.0051	0.0041	0.0036	0.0031
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0047	0.0055	0.0072	0.0090	0.0109	0.0123	0.0126	0.0118	0.0102	0.0080	0.0061	0.0050
Daily Avg. Liquid Surface Temp. (deg R):	504.0606	506.4586	512.4051	517.8218	523.1974	527.1217	528.5140	527.2351	523.0680	516.3236	510.4976	505.6968
Daily Min. Liquid Surface Temp. (deg R):	497.2384	498.3497	502.4880	506.1340	510.3347	513.8813	515.9190	515.4944	512.5724	506.8930	503.2574	499.4072
Daily Max. Liquid Surface Temp. (deg R):	510.8828	514.5674	522.3222	529.5097	536.0601	540.3620	541.1090	538.9759	533.5636	525.7542	517.7378	511.9864
Daily Ambient Temp. Range (deg. R):	21.7000	23.0000	25.0000	26.8000	26.9000	25.6000	23.5000	23.1000	23.7000	26.4000	23.2000	21.3000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9995	0.9994	0.9993	0.9991	0.9990	0.9988	0.9988	0.9988	0.9990	0.9992	0.9993	0.9994
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Vapor Space Outage (ft):	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500	2.6500
Working Losses (lb):	0.0144	0.0157	0.0195	0.0237	0.0286	0.0324	0.0337	0.0325	0.0284	0.0226	0.0181	0.0153
Vapor Molecular Weight (lb/lb-mole):	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0037	0.0041	0.0050	0.0061	0.0074	0.0084	0.0087	0.0084	0.0073	0.0058	0.0047	0.0039
Net Throughput (gal/mo.):	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000	1,250.0000
Annual Turnovers:	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000	7.5000
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Tank Diameter (ft):	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000	5.3000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	0.0376	0.0430	0.0652	0.0863	0.1128	0.1262	0.1290	0.1182	0.0940	0.0718	0.0475	0.0377

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

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

1 - Horizontal Tank
Bridgeport, West Virginia

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	0.28	0.68	0.97

Attachment L
FUGITIVE EMISSIONS FROM UNPAVED HAULROADS

UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

		PM	PM-10
k =	Particle size multiplier	0.80	0.36
s =	Silt content of road surface material (%)	10	10
p =	Number of days per year with precipitation >0.01 in.	150	150

Item Number	Description	Number of Wheels	Mean Vehicle Weight (tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1	Cement Delivery Trucks	18	40	5	0.5	2	2000	WT	70
2	Cement Product Trucks	18	40	5	0.5	2	3760	WT	70
3	Diesel Delivery Trucks	18	40	5	0.5	1	15	WT	70
4									
5									
6									
7									
8									

Source: *AP-42 Fifth Edition – 13.2.2 Unpaved Roads*

$E = k \times 5.9 \times (s \div 12) \times (S \div 30) \times (W \div 3)^{0.7} \times (w \div 4)^{0.5} \times ((365 - p) \div 365) =$ lb/Vehicle Mile Traveled (VMT)

Where:

		PM	PM-10
k =	Particle size multiplier	0.80	0.36
s =	Silt content of road surface material (%)	10	10
S =	Mean vehicle speed (mph)	5	5
W =	Mean vehicle weight (tons)	40	40
w =	Mean number of wheels per vehicle	18	18
p =	Number of days per year with precipitation >0.01 in.	150	150

For lb/hr: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] = lb/hr

For TPY: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] × [Ton ÷ 2000 lb] = Tons/year

SUMMARY OF UNPAVED HAULROAD EMISSIONS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	5.02	2.51	1.51	0.75	2.26	1.13	0.68	0.34
2	5.02	4.72	1.51	1.42	2.26	2.12	0.68	0.64
3	2.51	0.02	0.75	0.01	1.13	0.01	0.34	0.01
4								
5								
6								
7								
8								
TOTALS	12.55	7.25	3.77	2.18	5.65	3.26	1.70	0.99

FUGITIVE EMISSIONS FROM PAVED HAULROADS

INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface material silt content (%)	
L =	Surface dust loading (lb/mile)	

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1							
2							
3							
4							
5							
6							
7							
8							

Source: *AP-42 Fifth Edition – 11.2.6 Industrial Paved Roads*

$E = 0.077 \times I \times (4 \div n) \times (s \div 10) \times (L \div 1000) \times (W \div 3)^{0.7}$ = lb/Vehicle Mile Traveled (VMT)

Where:

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface meterial silt content (%)	
L =	Surface dust loading (lb/mile)	
W =	Average vehicle weight (tons)	

For lb/hr: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] = lb/hr

For TPY: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] × [Ton ÷ 2000 lb] = Tons/year

SUMMARY OF PAVED HAULROAD EMISSIONS

Item No.	Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY
1				
2				
3				
4				
5				
6				
7				
8				
TOTALS				

ATTACHMENT M

AIR POLLUTION CONTROL DEVICE INFORMATION

Attachment M
Air Pollution Control Device Sheet
(OTHER COLLECTORS)

Control Device ID No. (must match Emission Units Table): 1C

Equipment Information

1. Manufacturer: Donaldson Company, Inc. Model No. CPV-8	2. Control Device Name: Waste Tank Dust Collector Type: Filter Packs
3. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.	
4. On a separate sheet(s) supply all data and calculations used in selecting or designing this collection device.	
5. Provide a scale diagram of the control device showing internal construction. (attached)	
6. Submit a schematic and diagram with dimensions and flow rates. (attached)	
7. Guaranteed minimum collection efficiency for each pollutant collected: 0.001 grain/SCF (>99%)	
8. Attached efficiency curve and/or other efficiency information. (letter attached)	
9. Design inlet volume: SCFM	10. Capacity:
11. Indicate the liquid flow rate and describe equipment provided to measure pressure drop and flow rate, if any.	
12. Attach any additional data including auxiliary equipment and operation details to thoroughly evaluate the control equipment.	
13. Description of method of handling the collected material(s) for reuse of disposal. Reuse to extent possible, with off-site disposal of any unusable cement powder.	

Gas Stream Characteristics

14. Are halogenated organics present?	☐ Yes	☒ No
Are particulates present?	☒ Yes	☐ No
Are metals present?	☐ Yes	☒ No

15. Inlet Emission stream parameters:	Maximum	Typical
Pressure (mmHg):		
Heat Content (BTU/scf):		
Oxygen Content (%):		
Moisture Content (%):		
Relative Humidity (%):		

16. Type of pollutant(s) controlled: ☐ SO_x ☐ Odor ☒ Particulate (type): Cement Powder ☐ Other	
17. Inlet gas velocity: ft/sec	18. Pollutant specific gravity:
19. Gas flow into the collector: ACF @ °F and PSIA	20. Gas stream temperature: Inlet: ambient °F Outlet: ambient °F
21. Gas flow rate: Design Maximum: 3000 ACFM Average Expected: ACFM	22. Particulate Grain Loading in grains/scf: Inlet: 5 gr/SCF (max) Outlet: 0.001 gr/SCF

23. Emission rate of each pollutant (specify) into and out of collector:

Pollutant	IN Pollutant		Emission Capture Efficiency %	OUT Pollutant		Control Efficiency %
	lb/hr	grains/acf		lb/hr	grains/acf	
A PM	125	5 (max)		0.025	0.001	>99
B						
C						
D						
E						

24. Dimensions of stack: Height 36.5 ft. Diameter 1.33 ft.

25. Supply a curve showing proposed collection efficiency versus gas volume from 25 to 130 percent of design rating of collector.

Particulate Distribution

26. Complete the table:	Particle Size Distribution at Inlet to Collector	Fraction Efficiency of Collector
Particulate Size Range (microns)	Weight % for Size Range	Weight % for Size Range
0 – 2		
2 – 4		
4 – 6		
6 – 8		
8 – 10		
10 – 12		
12 – 16		
16 – 20		
20 – 30		
30 – 40		
40 – 50		
50 – 60		
60 – 70		
70 – 80		
80 – 90		
90 – 100		
>100		

27. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):
None

28. Describe the collection material disposal system:
Pulse Cleaning System

29. Have you included ***Other Collectores Control Device*** in the Emissions Points Data Summary Sheet? No

30. **Proposed Monitoring, Recordkeeping, Reporting, and Testing**
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING:	RECORDKEEPING:
3000 ACFM maximum flow rate	None
REPORTING:	TESTING:
None	None

MONITORING:	Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.
RECORDKEEPING:	Please describe the proposed recordkeeping that will accompany the monitoring.
REPORTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.
TESTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.

31. Manufacturer's Guaranteed Control Efficiency for each air pollutant. (attached)

32. Manufacturer's Guaranteed Control Efficiency for each air pollutant.

33. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.
See Attachments G and O for operation and maintenance procedures, as well as additional manufacturer information included in this Attachment.

Donaldson
FILTRATION SOLUTIONS

Donaldson Company, Inc.
1400 West 94th Street
Bloomington, MN 55431 USA

Mailing Address
PO Box 1299
Minneapolis, MN 55440 USA

Wilco Machine and Fab
IG#10035168
Attn: Mr. Tyler Worden
Address: 1328 South Broadway
Marlow, OK 73055

June 6, 2014

Reference: Wilco Machine and Fab Emission Guarantee for a Donaldson® Torit® PowerCore® CP Series (CPV-8) dust collector with Donaldson Torit PowerCore Ultra-Web® CP filter packs.

Equipment	(1) Donaldson Torit PowerCore CP Series (CPV-8) dust collector equipped with (8) Donaldson Torit PowerCore Ultra-Web CP filter packs.
Application	Bin venting
Dust	Silica Sand
Inlet Loading	Less than 5 grains per dry standard cubic foot
Air Volume	3,000 CFM
Gas Stream	Ambient with a maximum temperature of 120°F
Collector Location	Outside
Collector Exhaust	Outside

The Donaldson® Torit® PowerCore® CP Series (CPV-8) dust collector equipped with (8) Donaldson Torit PowerCore Ultra-Web CP filter packs. Dividing the actual air volume by the number of filter packs provides 375 CFM per pack. Based on the Donaldson Torit CP Series (CPV-8) dust collector being installed and operated in accordance with the CPV Installation, Operation, and Maintenance Manual; accepted industrial ventilation practices; and under the conditions stated above, we are offering the following emission guarantee utilizing Donaldson Torit PowerCore Ultra-Web CP filter packs. This guarantee does not cover filter failure due to negligence or improper operation and specifically excludes failure due to exceeding the recommended air-to-media ratio; damage due to fire, corrosion, abrasion or physical abuse; wet or oily compressed air usage, or the lack of adequate compressed air for proper filter cleaning.

Emission: The maximum average particulate emissions in the discharge gas stream from the Donaldson Torit PowerCore CP Series (CPV-8) dust collector using the Donaldson Torit PowerCore Ultra-Web CP filter packs will not exceed 0.001 grains per dry standard cubic foot over the life of the media.

The guarantee period ends after 4000 hours of operation or 12 months from the date of shipment, whichever is shorter. This provides ample time to confirm performance meets the stipulated thresholds in this document.

[The emissions portion of this warranty requires that all emission testing be performed by a qualified testing agency agreed upon by Donaldson Company and Wilco Machine and Fab. Such testing will be performed in accordance with recognized testing procedures, agreed upon by both Donaldson Company and Wilco Machine and Fab. Fees for the testing will be the responsibility of Wilco Machine and Fab.]

Donaldson
FILTRATION SOLUTIONS

Donaldson Company, Inc.
1400 West 94th Street
Bloomington, MN 55431 USA

Mailing Address
PO Box 1299
Minneapolis, MN 55440 USA

Pressure Drop: Average pressure drop not to exceed 6 inches of water gauge on a continual basis as measured across Donaldson Torit PowerCore Ultra-Web CP filter packs and tube sheet of the Donaldson Torit PowerCore CP Series (CPV-8) dust collector.

During the warranty period, Donaldson Company reserves the right to make any modifications, adjustments or take other necessary corrective actions, at Donaldson's expense, should the guarantee not be met by equipment malfunction due to defects in materials and/or workmanship as supplied by Donaldson Company. In no event shall Donaldson Company be liable for incidental, special or consequential damages resulting from nonconformity. Failure to use genuine Donaldson replacement parts or changes to the original system, either process or engineering, will cancel this guarantee.

Regards,

Tom Miller
Regional Sales Director

WILCO
MACHINE & FAB

WASTE TANK W/ TORIT DUST COLLECTOR
AIR PERMIT SPEC. SHEET

Customer: Allied Oil & Gas Services

Address: Bridgeport, WV

Waste Tank Size: 2560 CU FT

Dust Collector Type: Donaldson Torit CPV-8

Number of Emission Points: 1, on the dust collector

Type of System (pneumatic or vacuum): Vacuum

System Maximum Flow Rate (acfm): 3000 ACFM

Provide the following drawings (check if provided):

☒ Dust Collector Design (one for each type)

☒ Dust Cartridge Spec. Sheet (one for each type)

WILCO
MACHINE & FAB

DUST COLLECTOR SPECS

Manufacturer Name: Donaldson Torit

Model / Serial Number (if available): Model CPV-8

Emission Point Height Above Ground (ft): 36 FT. 6 IN.

Distance to Nearest Property Line (ft):

Distance to Nearest Off-site Receptor (ft):

Emission Point Outlet Size (in) 16 IN. DIAM (201 SQ IN. AREA)

Velocity (fps): Maximum 36 fps

Filtering Velocity (acfm/ft^2 of cloth): 5.95 acfm/ft^2

Filter Dimensions (inches) 7.56 IN. X 22.38 IN. X 7 IN.

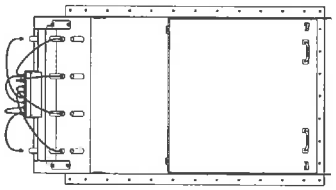
Total Number of Filters: 8

Filtering Material: Proprietary synthetic fiber and polymer

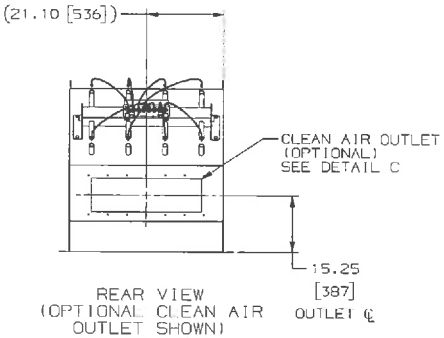
Filter Cleaning Method: Compact Oblique Pulse Cleaning System

Bag Cleaning Frequency: Upon controller signal based on sensor input

DWG REV.	ZONE	REVISION DESCRIPTION	APPROVAL/DATE
2		ADDED GENERAL UPDATES & METRIC CONVERSION 2013A01233	JML FEB 21, 2013



PLAN VIEW



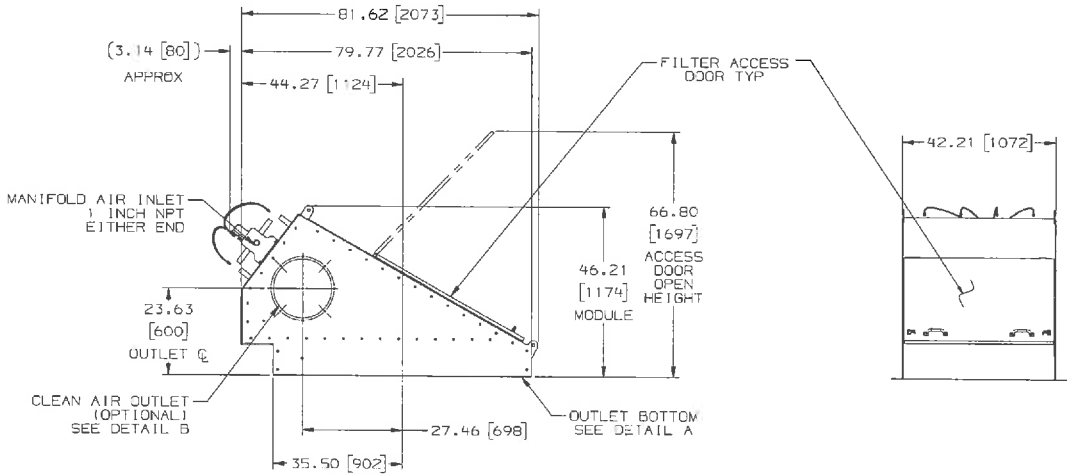
REAR VIEW (OPTIONAL CLEAN AIR OUTLET SHOWN) SEE DETAIL C

SPECIFICATIONS FOR CPV-8

NUMBER OF FILTERS	8
FILTER DIMENSIONS	7.56 X 22.38 X 7 HIGH [192 x 568 x 178]
NUMBER OF VALVES	8
COMPRESSED AIR REQUIRED	90-100 PSI [6-7 mmwg]
AIR CONSUMPTION	10 scfm [17 m³/hr]
HOUSING RATING	±20" wg [508 mmwg]
OPERATING TEMP	(FILTER ELEMENT MAY VARY) 150°F [66°C] MAX.
STANDARD COLOR	BLUE (OPTIONAL COLORS AVAILABLE)
APPROXIMATE WEIGHT	800 LBS [363 kg]

IBC 2009 SPECIFICATIONS:

OCCUPANCY CATEGORY 2
BASIC WIND SPEED & EXPOSURE :90 MPH, [145 km/hr] EXPOSURE C, 3 SEC GUST
SEISMIC SPECTRAL ACCELERATION, S_s=1.5 & S_1=0.6, SITE CLASS D
GROUND SNOW LOAD, Pg:40 PSF [195 Kg/m²]
ROOF LIVE LOAD, L_r : 20 PSF [98 Kg/m²]
COLLECTOR BASE AT GRADE



NOTES:

1. DO NOT INSTALL OR OPERATE THIS EQUIPMENT UNTIL YOU HAVE READ AND UNDERSTOOD THE INSTRUCTIONS AND WARNINGS IN THE INSTALLATION AND OPERATION MANUAL. FOR A REPLACEMENT MANUAL, CONTACT DONALDSON COMPANY INC. (800-365-1331)
2. WIRING DIAGRAMS: NEMA 4: 3EA AD3838902 NEMA 9: 3EA AD3838904
3. CLEAN AIR OUTLET CAN BE LOCATED ON RIGHT SIDE, LEFT SIDE OR BOTTOM OF UNIT.
3. DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

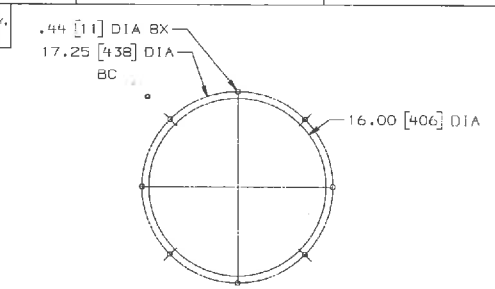
MATERIAL - - -	RELEASE NO. 09A7000	TITLE	DUST COLLECTOR CPV-8
	DATE AUG 22, 2006		
	EXP. DATE		
REFERENCE	DRN J.SEVERSON	NUMBER	CPV AD3878204
	DATE AUG 09, 2006		
	CHK M.KALIS	SCALE NONE	SHEET 1 OF 4 REVISION
PREVIOUS DRAWING NO.	DATE AUG 09, 2006	C/C	NX/CADD
	APVD M.KALIS	SECTIONAL SIZE	OUTLINE SIZE 2
DO NOT SCALE	TOLERANCES UNLESS OTHERWISE SPECIFIED: 2 PL ± 3 PL ± ANGLES ±°	DESIGN CONTROL A004	DWG LOCATION A101 VERSION A
	DATE AUG 09, 2006	COPYRIGHT © DONALDSON COMPANY, INC.	
	THIRD ANGLE PROJECTION		

Donaldson Co., Inc. Minneapolis, MN USA

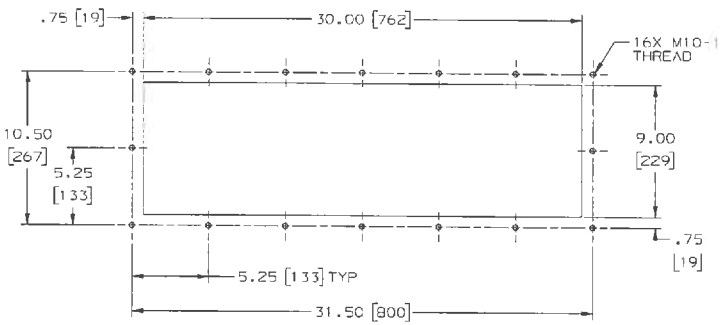
1AF

TORIT CPV-8

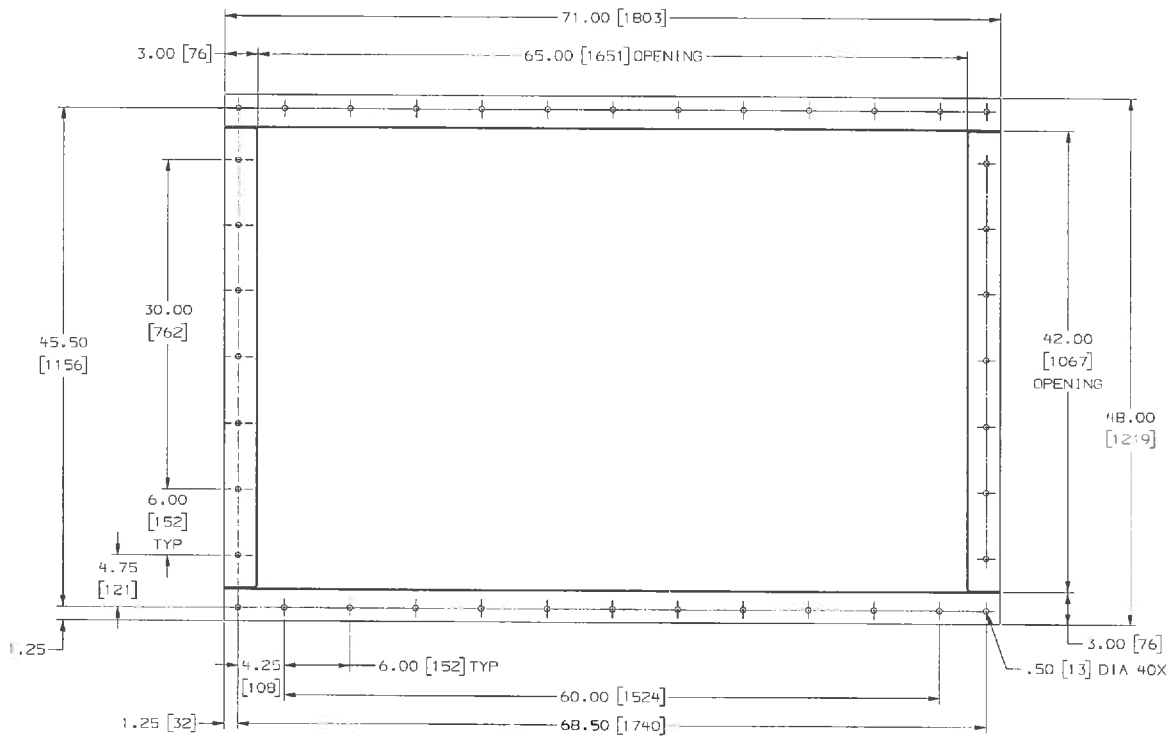
DWG NO.	REV	ZONE	REVISION DESCRIPTION	APPROVAL/DATE



CLEAN AIR OUTLET
(SIDE OUTLET OPTIONAL)
DETAIL B



REAR OUTLET
(OPTIONAL)
DETAIL C



BOTTOM FLANGE OUTLET
DETAIL A

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

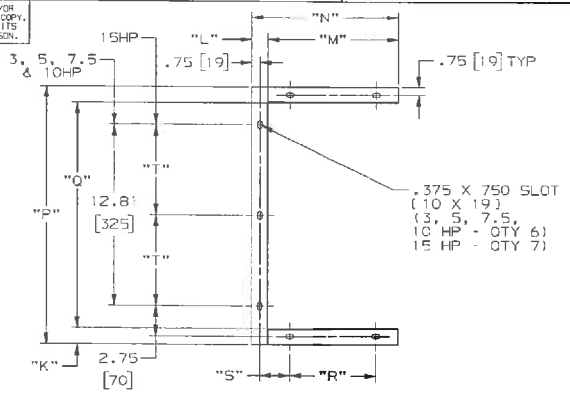
MATERIAL - - -	RELEASE NO. 09A7000	TITLE	DUST COLLECTOR CPV-8
	DATE AUG 22, 2008		
	EXP DATE		
REFERENCE	DWN J.SEVERSON	NUMBER	CPV AD3878204
	DATE AUG 09, 2008		
	CHK M.KALIS	SCALE NONE	SHEET 2 OF 4
	DATE AUG 09, 2008		REVISION 2
PREVIOUS DRAWING NO.	APVD M.KALIS	C/C	NX/CADD
DO NOT SCALE	DATE AUG 09, 2008	SECTIONAL SIZE	OUTLINE SIZE
TOLERANCES UNLESS OTHERWISE SPECIFIED: 2 PL ± 3 PL ± ANGLES ±	THIRD ANGLE PROJECTION	DESIGN CONTROL AOD4	DWG LOCATION A1O1
		COPYRIGHT © DONALDSON COMPANY, INC.	VERSION A

Donaldson Co., Inc. Minneapolis, MN USA

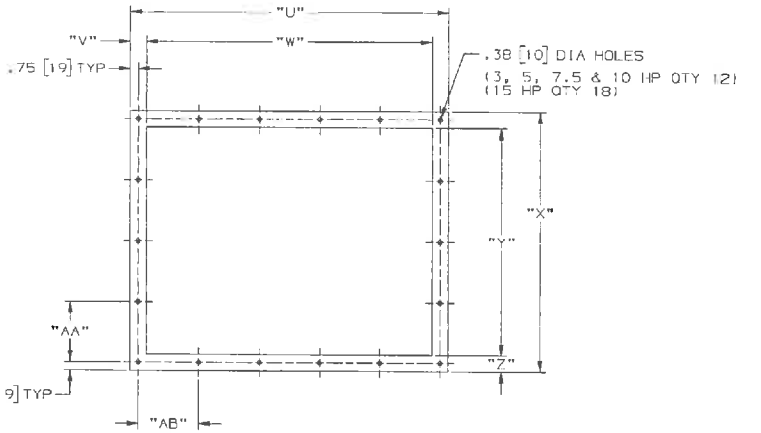
IAF

TORIT CPV-8

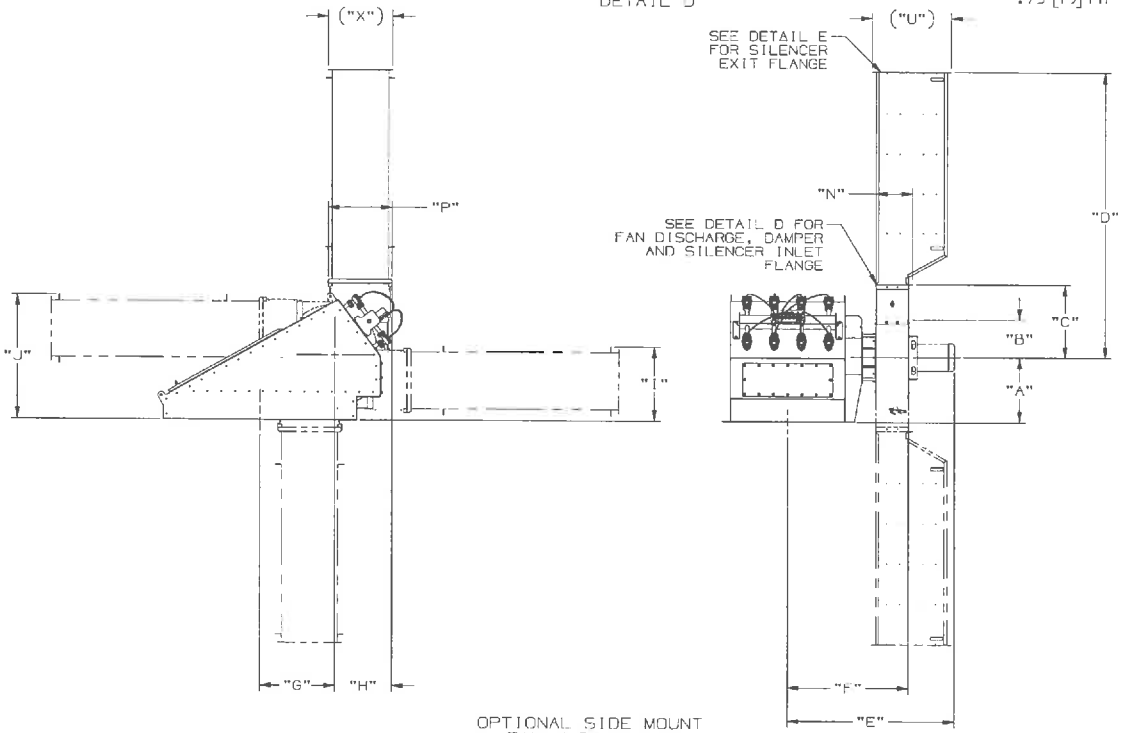
DWG NO.	REV	ZONE	REVISION DESCRIPTION	APPROVAL/DATE



FAN EXIT, DAMPER AND SILENCER INLET FLANGE DETAIL D



SILENCER EXIT FLANGE DETAIL E



OPTIONAL SIDE MOUNT FAN / DAMPER / HIGH PERFORMANCE SILENCER (RIGHT SIDE MOUNT SHOWN)

TORIT CPV-8

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

MATERIAL - - -	RELEASE NO. 09A700C	TITLE	DUST COLLECTOR CPV-8
	DATE AUG 22, 2008		
	EXP DATE		
REFERENCE	DWN J.SEVERSON	NUMBER	CPV AD3878204
	DATE AUG 09, 2008		
	CHK M.KALIS	SCALE NONE	SHEET 3 OF 4 REVISION 2
	DATE AUG 09, 2008		
PREVIOUS DRAWING NO.	APVD M.KALIS	C/C	NX/CADD
DO NOT SCALE	DATE AUG 09, 2008	SECTIONAL SIZE	OUTLINE SIZE
TOLERANCES UNLESS OTHERWISE SPECIFIED	THIRD ANGLE PROJECTION	DESIGN CONTROL A004	DNB LOCATION A101
		COPYRIGHT © DONALDSON COMPANY, INC.	VERSION A

Donaldson. Donaldson Co., Inc. Minneapolis, MN USA

IAF

DWG NO.	REV	ZONE	REVISION DESCRIPTION	APPROVAL/DATE

FAN & ACCESSORY DIMENSION TABLE

DIMENSION	60 HZ TBI FAN				
	3 HP	5HP	7.5 HP	10 HP	15 HP
A	23.62	23.62	23.62	23.62	23.62
B	11.71	11.71	11.71	11.71	13.81
C	21.56	21.56	22.93	24.25	26.85
D	87.56	87.56	88.93	90.25	103.85
E	46.02	48.90	51.98	53.29	55.01
F	34.16	34.91	36.29	37.60	38.10
G	27.46	27.43	27.46	27.46	27.46
H	18.31	18.31	18.31	18.31	21.77
I	26.86	26.86	26.86	26.86	26.96
J	41.93	41.93	41.93	41.93	45.39
K	1.50	1.50	1.50	1.50	1.50
L	1.50	1.50	1.50	1.50	1.50
M	7.94	8.69	10.06	11.38	11.88
N	9.44	10.19	11.56	12.81	13.38
P	19.81	19.81	19.81	19.81	23.38
Q	16.81	16.81	16.81	16.81	20.38
R	3.94	4.69	6.06	7.38	7.88
S	2.75	2.75	2.75	2.75	3.25
T	-	-	-	-	8.19
U	18.60	18.60	18.60	18.60	29.00
V	1.50	1.50	1.50	1.50	1.50
W	15.60	15.60	15.60	15.60	26.00
X	19.94	19.94	19.94	19.94	23.50
Y	16.94	16.94	16.94	16.94	20.50
Z	1.50	1.50	1.50	1.50	1.50
AA	5.70	5.70	5.70	5.70	5.50
AB	6.15	6.15	6.15	6.15	5.50

FAN & ACCESSORY METRIC DIMENSION TABLE

DIMENSION	60 HZ TBI FAN				
	3 HP	5HP	7.5 HP	10 HP	15 HP
A	600	600	600	600	600
B	297	297	297	297	351
C	548	548	582	616	682
D	2224	2224	2259	2292	2638
E	1169	1242	1320	1354	1397
F	868	887	922	955	968
G	697	697	697	697	697
H	465	465	465	465	553
I	682	682	682	682	685
J	1065	1065	1065	1065	1153
K	38	38	38	38	38
L	38	38	38	38	38
M	202	221	256	209	302
N	240	259	294	325	340
P	503	503	503	503	594
Q	427	427	427	427	518
R	100	119	154	187	200
S	70	70	70	70	83
T	-	-	-	-	208
U	472	472	472	472	737
V	38	38	38	38	38
W	396	396	396	396	660
X	506	506	506	506	597
Y	430	430	430	430	521
Z	38	38	38	38	38
AA	145	145	145	145	140
AB	156	156	156	156	140

THIS DOCUMENT IS NOT CERTIFIED FOR CONSTRUCTION PURPOSES AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

MATERIAL - - -	RELEASE NO. 09A7000	TITLE	DUST COLLECTOR CPV-8
	DATE AUG 22, 2008		
	EXP DATE		
REFERENCE	DWN J.SEVERSON	NUMBER	CPV AD3878204
	DATE AUG 09, 2008		
	CHK M.KALIS		
	DATE AUG 09, 2008	SCALE NONE	SHEET 4 OF 4
PREVIOUS DRAWING NO.	APVD M.KALIS	C/C	NX/CADD
DO NOT SCALE	DATE AUG 09, 2008	SECTIONAL SIZE	OUTLINE SIZE
TOLERANCES UNLESS OTHERWISE SPECIFIED: 2 PL ± 3 PL ± ANGLES ±°	THIRD ANGLE PROJECTION	DESIGN CONTROL A001	DWG LOCATION A101
		COPYRIGHT © DONALDSON COMPANY, INC.	

REVISION 2 | VERSION A | 1AF

Donaldson. Donaldson Co., Inc. Minneapolis, MN USA

TORIT CPV-8

Donaldson
Torit

TORIT® POWERCORE® DUST COLLECTORS
CP SERIES

PowerCore

SMALLER. SMARTER COLLECTORS.

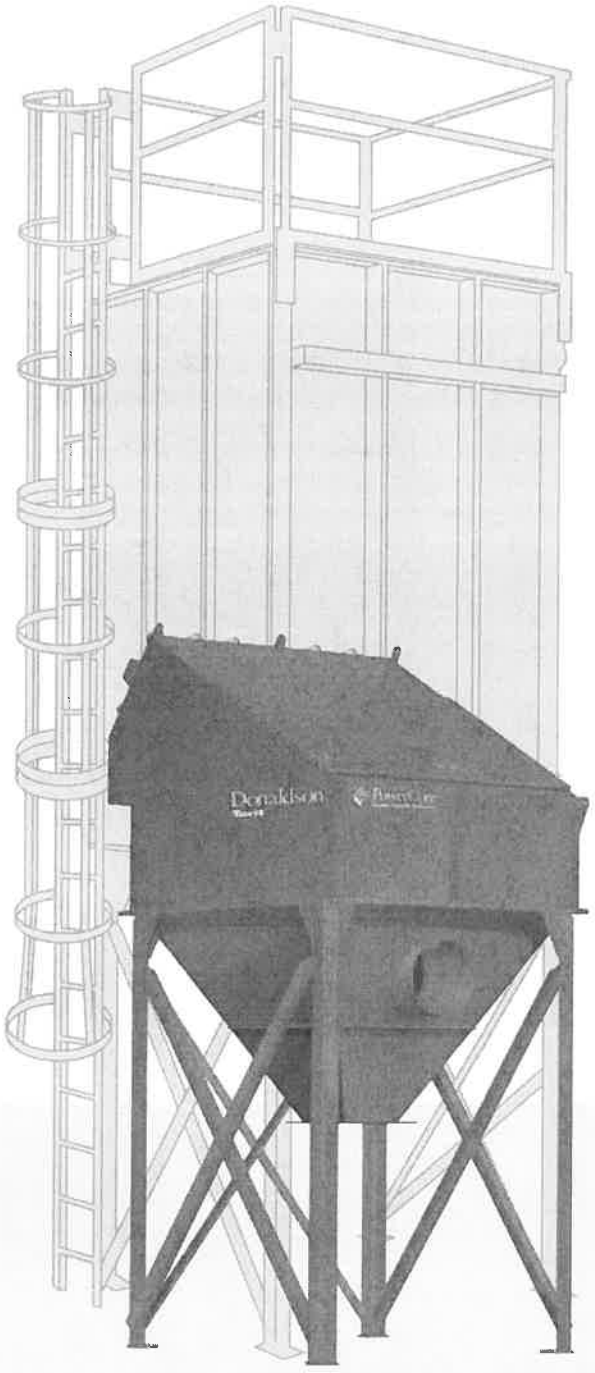
Torit® PowerCore® dust collection technology from Donaldson® Torit® outperforms traditional baghouse collectors and does so in less space. In one extremely small and powerful package, the Torit PowerCore dust collector handles high airflow, high grain loading, challenging particulate and fits into the smallest places. The filter changeout is remarkably quick, easy and clean compared to the process for traditional bag filters.

Innovative Torit PowerCore dust collectors combine award-winning PowerCore filter packs with a new proprietary compact pulse cleaning system. This proprietary combination delivers high filtration efficiencies not usually found in baghouse filtration.

TORIT POWERCORE

- SMALLER
- SMARTER
- CLEANER
- EASIER
- COST EFFECTIVE

UP TO 50% SMALLER THAN TRADITIONAL BAGHOUSE COLLECTORS



Torit PowerCore CPC-12
vs.
Traditional (B1) 8-ft. filter baghouse
5000 cfm (8493 m³/h) collectors

OUTPERFORMS TRADITIONAL BAGHOUSE COLLECTORS

Today's streamlined and lean manufacturing facilities demand peak performance even within the smallest spaces. Torit PowerCore space-saving dust collectors are available as stand-alone models that can be ducted to many different applications, as well as bin vent models used on applications like silos, conveyor transfer points, conveyor discharges, blenders and mixers.

Compared to traditional baghouse collectors with similar airflow capacities, Torit PowerCore CPC dust collectors (as shown on previous page) are up to 50% shorter. The comparison to traditional bag-style bin vents is even more dramatic. CPV bin vent collectors are almost 70% shorter than other bag-style bin vents and effectively address the frequent challenge of tight space limitations.

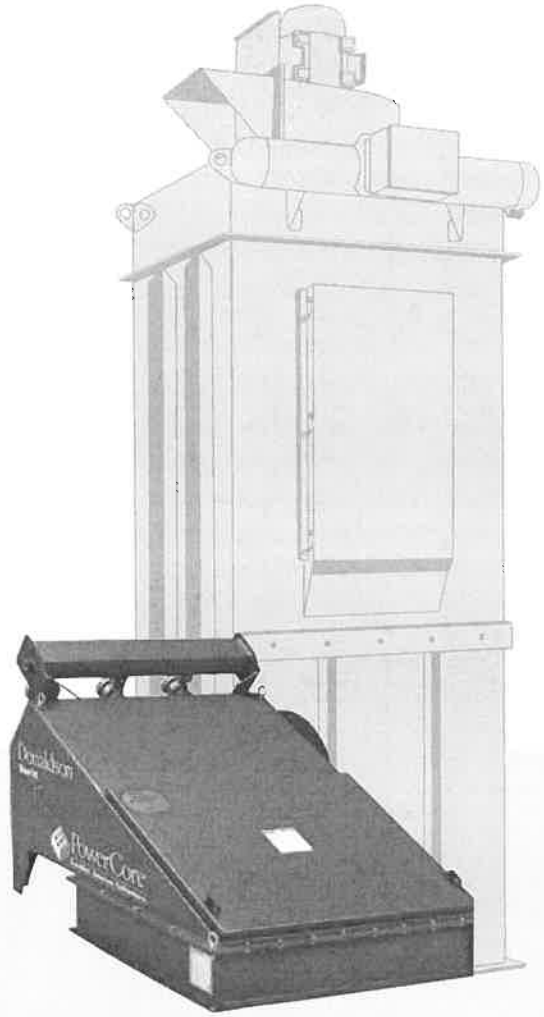
SMALLER
Bin vents fit into the tightest spaces

CLEANER
PowerCore filter packs with Ultra-Web® technology provide higher efficiency for cleaner air. Plus, replacing PowerCore filter packs is a remarkably clean process

EASIER
Clean-side filter access and fewer, lighter filters means faster, easier filter changes without tools or filter cages

SMARTER
An optimized airflow management system delivers optimal pulse cleaning while minimizing airflow restriction

COST EFFECTIVE
Innovative PowerCore filtration technology means reduced freight and installation costs, fewer filter changeouts, lower maintenance costs, and no entry requirements for filter changes



UP TO **70%** SMALLER THAN TRADITIONAL BIN VENT COLLECTORS

Torit PowerCore CPV-3
vs.
Traditional bin vent
1500 cfm (2548 m³/h) collectors

SMALLER. SMARTER FILTERS.

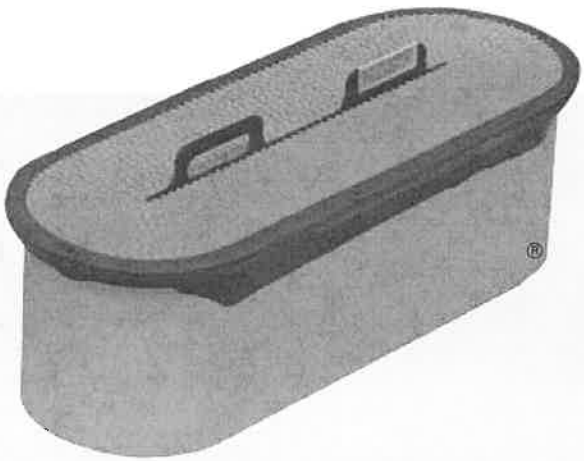
POWERCORE FILTER PACK—NOT A BAG, NOT A CARTRIDGE

An entirely new approach to dust collectors, the PowerCore filter pack is small, lightweight, and easily handled by one person. Donaldson's PowerCore technology allows more effective filter area to be packaged in a smaller space: one 7" x 22" (178 x 559 millimeters) PowerCore filter pack contains as much filtering area as 6 eight-foot-long (2.4 meters) traditional filter bags. And the filter media inside PowerCore filter packs is our well-proven Ultra-Web advanced nanofiber technology.

POWERCORE FILTER PACK

PowerCore®

- Changeout from the clean side of the collector — only 1 person required
- Self-centering with a handle for easy changes without tools
- Integrated gasket ensures a good seal with every change
- At only 7" tall, bridging is not a problem

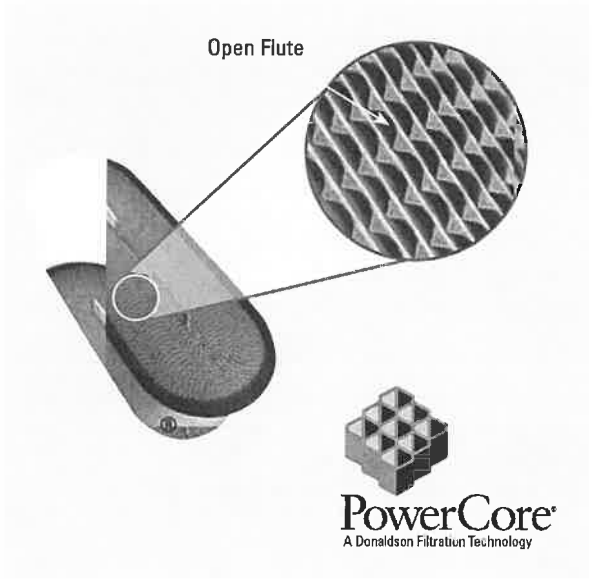


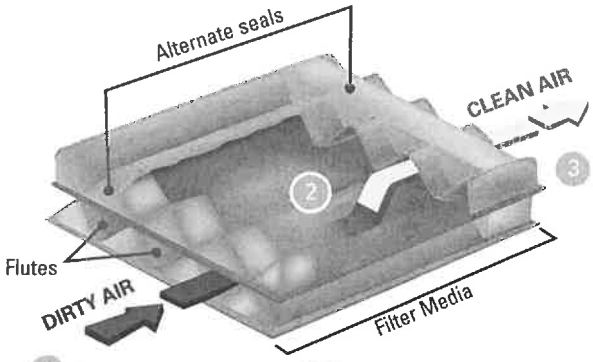
ONE 7" POWERCORE FILTER PACK | *replaces* **SIX 8' BAG FILTERS**

INNOVATIVE MEDIA TECHNOLOGY

LEADING THE WAY WITH POWERCORE

At the Core is PowerCore. PowerCore filter packs combine proprietary Ultra-Web nanofiber technology with Donaldson's media configuration expertise. The result is a revolutionary filtration technology unlike anything else in the industrial filtration market.





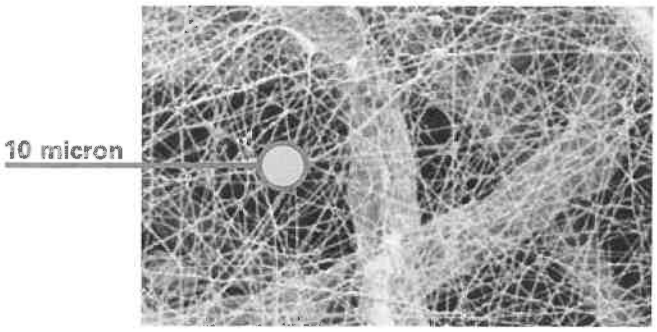
1 Dirty air enters an open flute on the dirty air side of the filter pack.

2 Because the flute is sealed on the opposite end, air is forced to pass through the filter media into an adjacent flute.

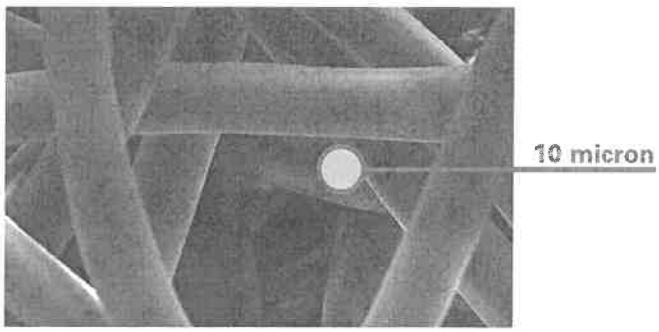
3 The now filtered air exits the filter pack through a flute that is open on the clean air side of the filter pack.

HIGH PERFORMANCE FILTER MEDIA

In a dramatic departure from the traditional filter bag, the PowerCore filter pack contains Ultra-Web media, which traps more dust on the surface of the fluted channels as compared to conventional bag filter materials like depth-loading 16 oz. (453.6 g) polyester. Surface loading greatly promotes filter cleaning. Better pulse cleaning lowers operational pressure drop and energy use.



Ultra-Web Nanofiber Technology
(600x)

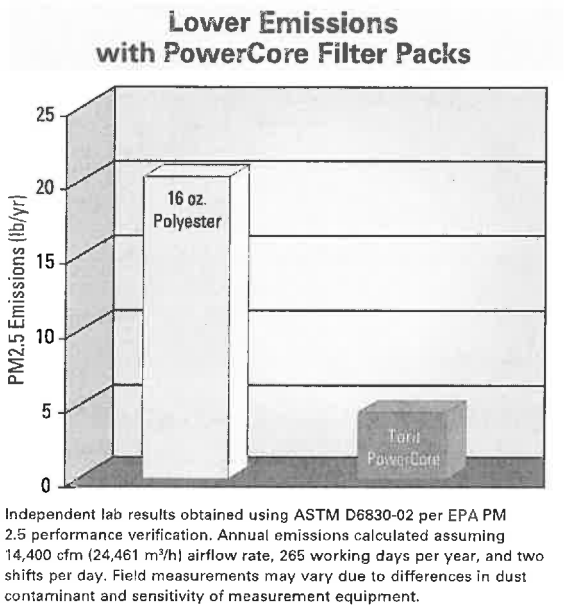


16 oz. (453.6 g) Polyester
(600x)

POWERCORE FILTER PACKS – ENGINEERED TO PERFORM

TECHNOLOGY THAT PERFORMS FOR OVER 25 YEARS

Donaldson Torit Ultra-Web technology has delivered high efficiency filters that last. PowerCore filter packs with Ultra-Web are engineered to perform, balancing high efficiencies with long filter life.



Independent lab results obtained using ASTM D6830-02 per EPA PM 2.5 performance verification. Annual emissions calculated assuming 14,400 cfm (24,461 m³/h) airflow rate, 265 working days per year, and two shifts per day. Field measurements may vary due to differences in dust contaminant and sensitivity of measurement equipment.

OUTSTANDING PERFORMANCE

Torit PowerCore CP Series systems with PowerCore filter packs deliver outstanding performance with PM 2.5 emissions below 0.001 grains per cubic foot, per EPA Method 27 and EPA Method 5i.

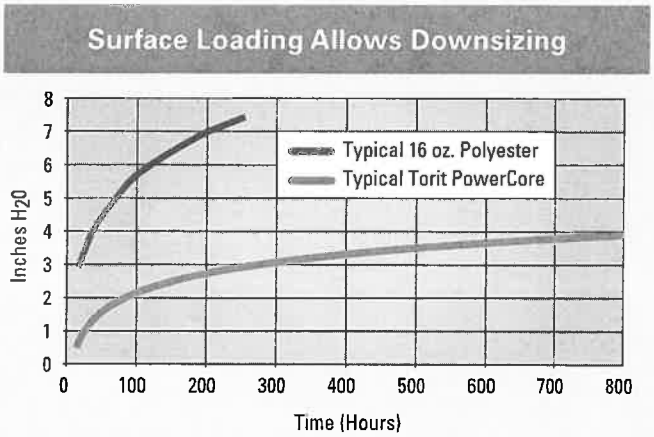
Torit Powercore CP Series filter packs are efficiency rated MERV15 per the ASHRAE 52.2-2007 test standard.

78% FEWER EMISSIONS | MERV 15

EASY ON THE BUDGET

The surface-loading technology of Ultra-Web is proven to provide lower operating pressure drop over a longer period of time, and energy costs can be dramatically reduced. Pressure drop starts high and rises quickly with traditional depth-loading bag filters, resulting most often in excessive energy use.

For proven technology that delivers savings in energy, maintenance, space, and filter changes, the smartest solution is Torit PowerCore.

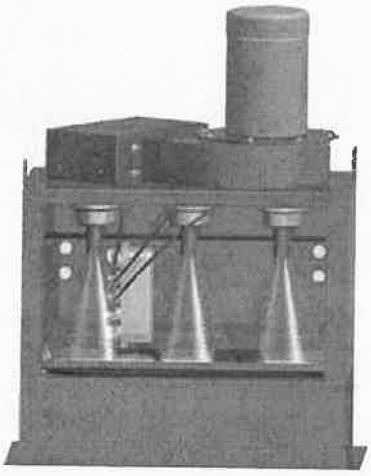


The results from accelerated lab and field tests show that Torit PowerCore can provide lower pressure drop in baghouse applications.

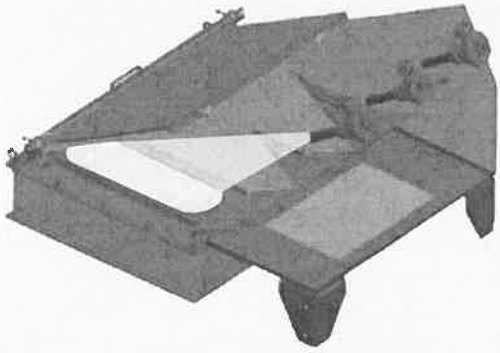
OPTIMIZED AS A SYSTEM

SMARTER FILTER CLEANING

Torit PowerCore collectors include a new proprietary compact pulse cleaning system designed to match the pulse energy to the obround shape of the PowerCore filter pack. The resulting pulse flow effectively covers the entire media pack. It easily pulses the dust out of the fluted channels, keeping the pressure drop low and prolonging filter life.



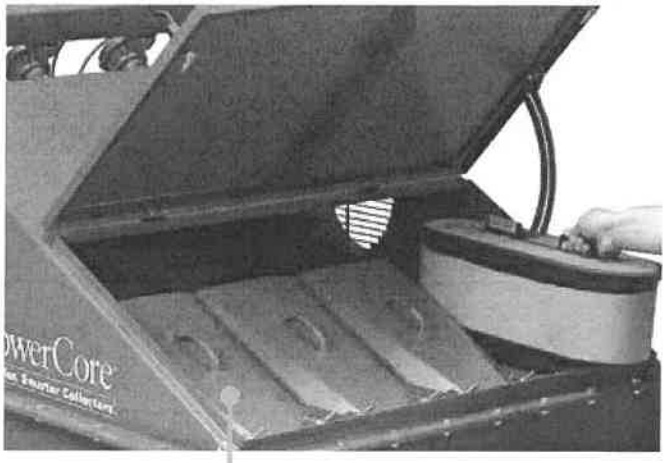
Compact Pulse Cleaning System CPV-1



Compact Oblique Pulse Cleaning System
CPV-2 THROUGH CPV-12

SOPHISTICATED MODELING

Providing optimized pulse cleaning, the pulse accumulator design is based on Donaldson Torit's commitment to technical research and development. FLUENT®* Airflow Modeling Software was used to determine the shape of the pulse accumulators to optimize the pulse energy without restricting the airflow or wasting energy. The pulse accumulators also serve as a filter retention mechanism, securing the filter pack in place and ensuring optimum gasket compression.



Pulse Accumulator
Optimizes Pulse & Seals Filter Pack

* FLUENT is a registered trademark of Fluent, Inc.

MAKING MAINTENANCE EASIER

SMALLER, BETTER, SMARTER

Torit PowerCore can reduce your cost of dust collection resulting in significant operational savings. An application previously requiring (81) 8-foot (2.4 meter) bag filters now needs only (12) 7-inch-tall (177.8 mm) PowerCore filter packs. Fewer filters mean lower filter changeout costs and faster changeouts. The smaller collector means lower installation costs and less factory floor or bin space consumption.

	# of Filters in Collector	Time to Replace*	Labor Cost	Time Savings*	Labor Savings*
PowerCore Filter Packs	12	ONLY 24 minutes	$18	13.1 hours	$590 SAVED
Traditional Bag Filters	81	13.5 hours	$608	0	0

* Savings are based on one changeout. Calculations assume bags and PowerCore filter packs show equal life span; one person replacing one traditional bag filter in 10 minutes; one person changing PowerCore in 2 minutes; labor rates equal $45/hr.

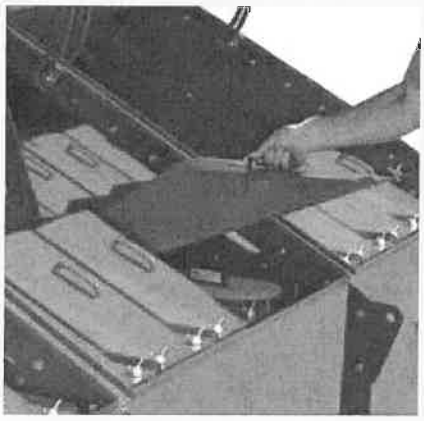
EASY MAINTENANCE

Replacing PowerCore filter packs is as easy as 1-2-3. Contrary to many traditional baghouse collectors, PowerCore filter packs are lightweight and accessed from the clean side of the collector.

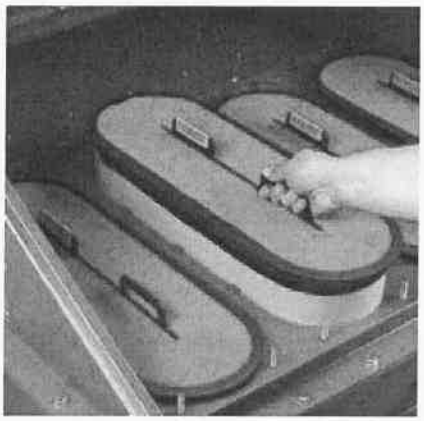
POWERCORE FILTER PACK REPLACEMENT — EASY. FAST. CLEAN. NO TOOLS OR CAGES REQUIRED.

1. Lift up filter access door. (Clean side of the system)

2. Loosen the captive hardware and remove the pulse accumulator.



3. Lift out the filter pack for easy replacement.



NO ENTRY REQUIRED

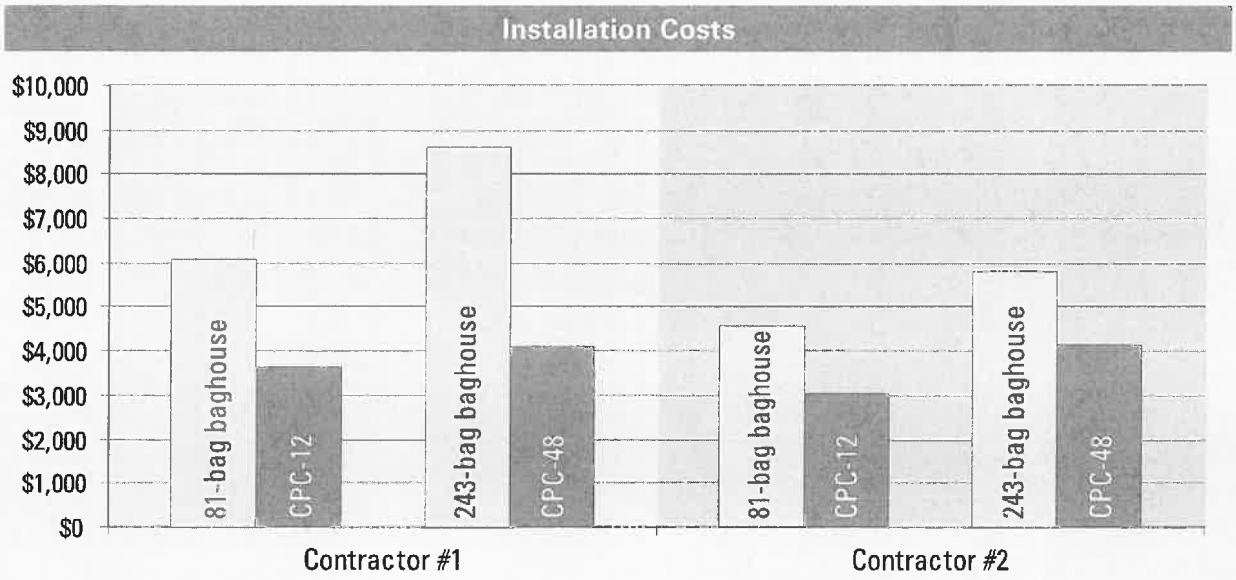
HOW SMALLER MEANS SMARTER OPERATION

SMART RESULTS IN MANY WAYS

- Collectors weigh less, so shipping costs are lower
- There are no bag filters or cages to ship and install separately
- Easier filter pack changeouts save time and money
- Airflow design prevents dust bridging between filter packs, creating less maintenance required
- Airflow patterns minimize abrasion, preventing leaks and maintenance common with abrasive dust

A CPV-2 is 70% smaller than a traditional bin vent making shipping easy and reducing freight costs.

UP TO 50% LOWER INSTALLATION COSTS



The Torit PowerCore system arrives mostly assembled, so installation is faster and easier. Installation costs are reduced 30-50% due to lighter weight, less crane time, and pre-assembly. The filter packs come pre-installed in the collector, so there are no bags or cages to install separately.

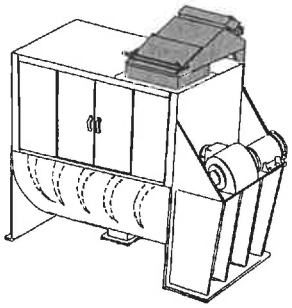
THE OPTIMIZED SOLUTION FOR MATERIAL HANDLING

SMARTER SOURCE FILTRATION

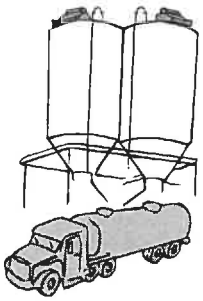
Torit PowerCore CPV bin vent collectors are easily integrated into a variety of material-handling applications—even in tight spaces—providing source filtration that saves money and energy.

SOURCE COLLECTION WITH TORIT POWERCORE CAN PROVIDE:

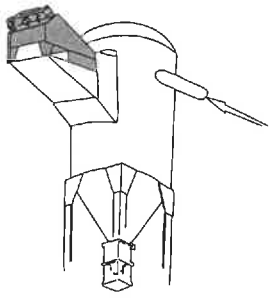
- Lower initial costs: freight, installation, and ducting are all reduced
- Reduced energy consumption as air and dust aren't moved unnecessarily through long ducting runs
- Product will stay in the process, eliminating waste streams and costly recycle systems



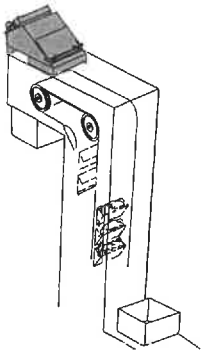
Blender/Mixer



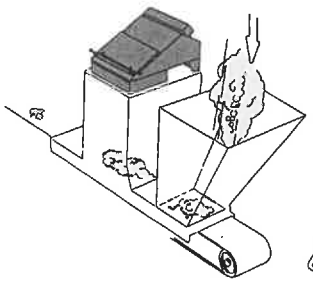
Silo/Bin Vent



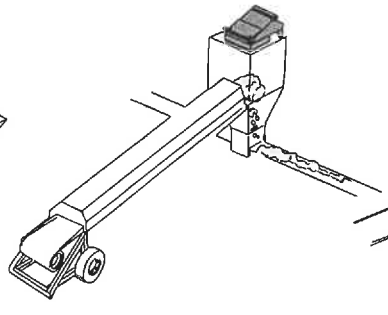
Pneumatic Receiver



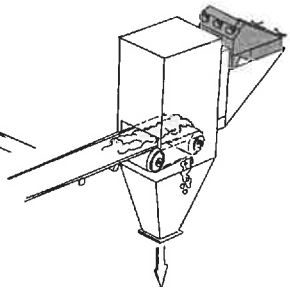
Bucket Elevator



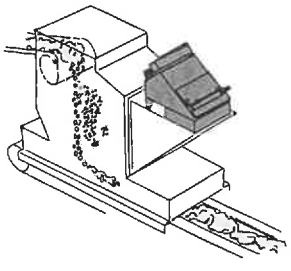
Chute-to-Belt



Tripper Conveyor



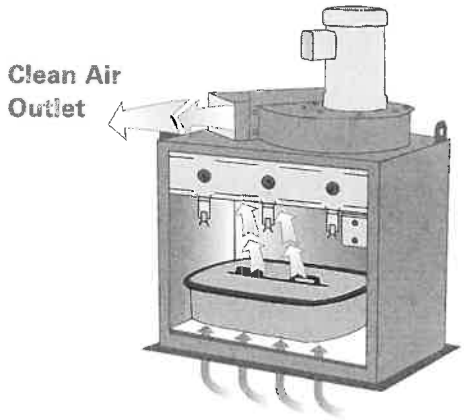
Conveyor Discharge



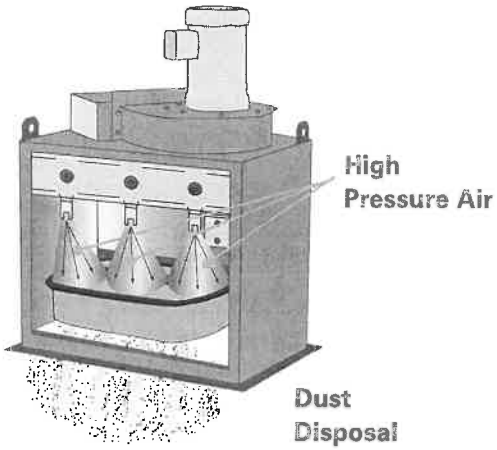
Conveyor Transfer

HOW THE CP SERIES WORKS

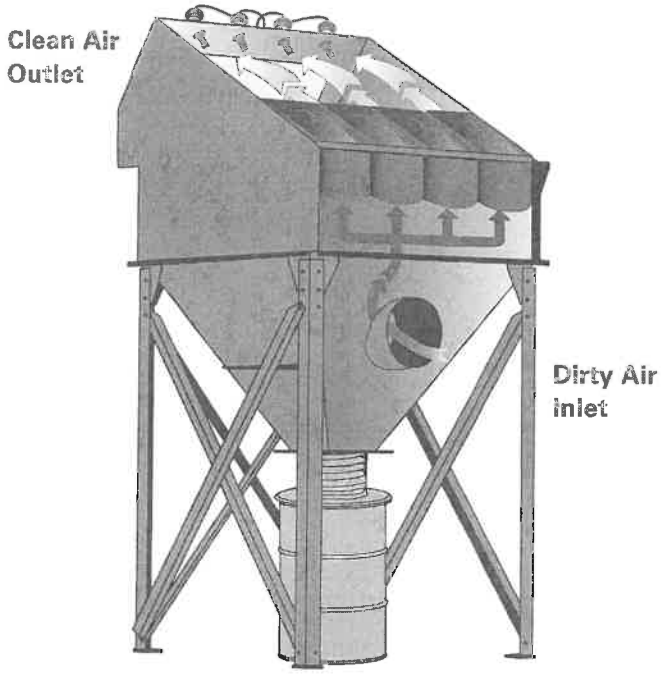
- Dust-laden air enters the collector through the dirty air inlet and is directed upward through the filter packs
- Heavier particulate falls directly into the hopper or bin below
- Air is filtered through the filter packs and directed out the clean air outlet
- When pressure drop exceeds a pre-set point, the compact pulse system sends a pulse of cleaning air back through the filter packs and thoroughly cleans the media flutes



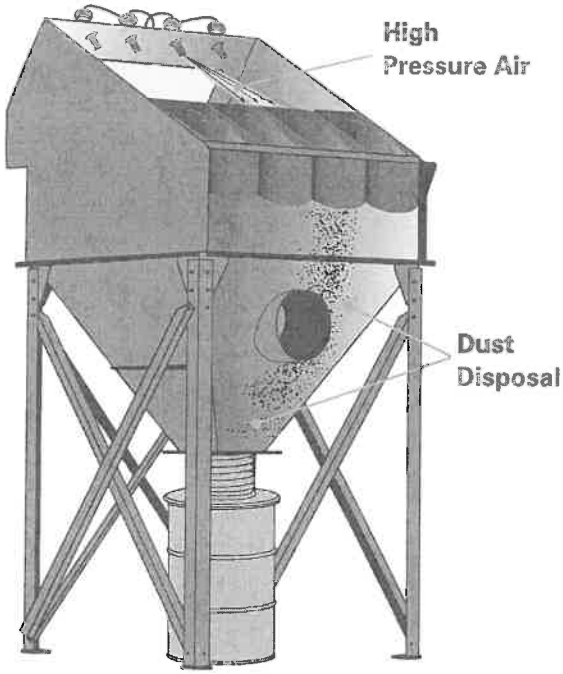
NORMAL OPERATION
FOR CPV-1 MODEL



FILTER CLEANING OPERATION
FOR CPV-1 MODEL



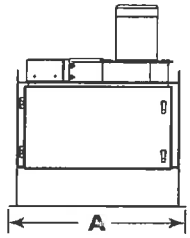
NORMAL OPERATION
FOR CPC-3 THROUGH CPC-48 MODELS



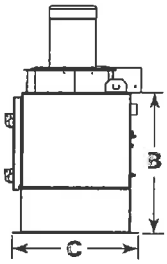
FILTER CLEANING OPERATION
FOR CPC-3 THROUGH CPC-48 MODELS

DIMENSIONS & SPECIFICATIONS

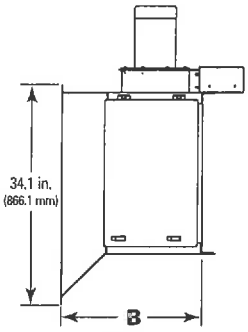
MODELS CPV-1



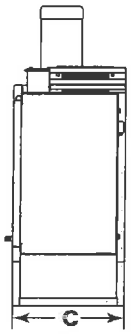
CPV-1
Front View



CPV-1
Side View

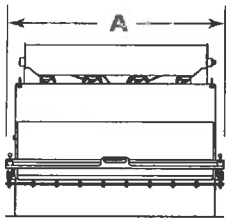


CPV-1
Vertical Front View

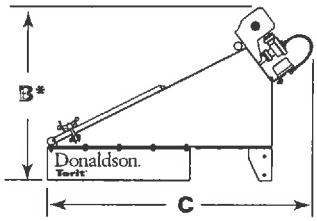


CPV-1
Vertical Side View

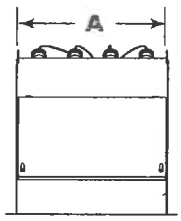
MODELS CPV-2 TO CPV-12



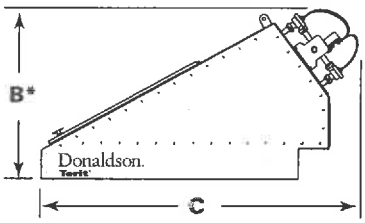
CPV-2, -3, -4
Front View



CPV-2, -3, -4
Side View



CPV-6, -8, -12
Front View



CPV-6, -8, -12
Side View

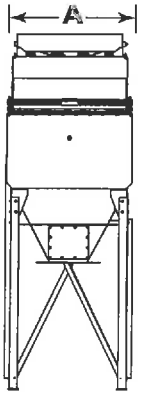
Model	Nominal Airflow Range** cfm	Nominal Airflow Range** m³/h	No. of Filter Packs	PowerCore Filter Area ft²	PowerCore Filter Area m²	No. of Valves	Shipping Weight lb	Shipping Weight kg	Housing Rating ("wg)	Dimensions A in	Dimensions A mm	Dimensions B* in	Dimensions B* mm	Dimensions C in	Dimensions C mm
CPV-1	up to 700	up to 1189	1	63	5.9	3	120†	54.4†	±12	28.0	711.2	22.3	566.4	17.6	447.0
CPV-2	450 - 1,400	764 - 2,378	2	126	11.7	2	290	131.5	±20	26.8	680.7	37.2	944.9	47.7	1,211.6
CPV-3	700 - 2,000	1,189 - 3,397	3	189	17.6	3	375	170.1	±20	36.8	934.7	37.2	944.9	47.7	1,211.6
CPV-4	1,400 - 2,700	2,378 - 4,586	4	252	23.4	4	460	208.7	±20	46.8	1,188.7	37.2	944.9	47.7	1,211.6
CPV-6	2,100 - 4,100	3,567 - 6,964	6	378	35.1	6	715	324.3	±20	38.0	965.2	46.1	1,170.9	83.6	2,123.4
CPV-8	2,800 - 5,400	4,756 - 9,173	8	504	46.8	8	800	362.9	±20	48.0	1,219.2	46.1	1,170.9	83.6	2,123.4
CPV-12	4,200 - 8,200	7,134 - 13,929	12	756	70.2	12	1290	585.1	±20	70.0	1,778.0	46.1	1,170.9	83.6	2,123.4

* For opening access door, allow a minimum of 2.5" (63.5 mm) above unit for models 2, 3, 4, and a minimum of 20.5" (520.7 mm) for models 6, 8, 12.
** Based on clean filters.
† Shipping weight with integral fan is 160 lbs. (72.6 kg)

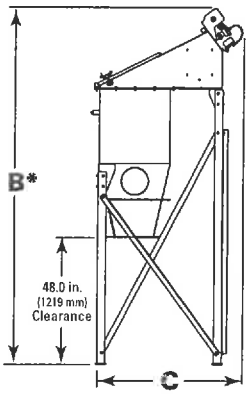
OPERATING CONDITIONS FOR CP SERIES COLLECTORS

Seismic Spectral Acceleration (at grade)	S_s +1.5 & S_1= 0.6	Compressed Air Required (psi/bar)	90-100/6.2-6.9
Wind Load Rating (mph/kph)	90/145	Operating Temperature	150°F/66 °C

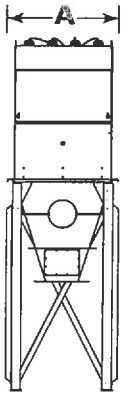
MODELS CPC-3 TO CPC-48



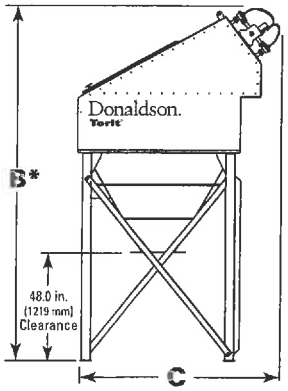
CPC-3, -4
Front View



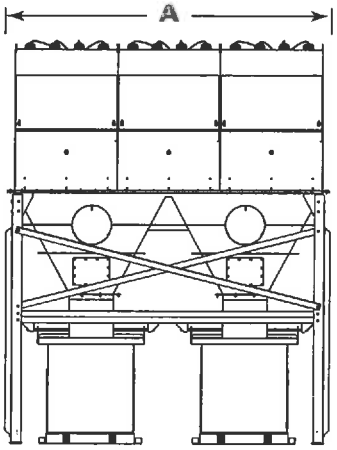
CPC-3, -4
Side View



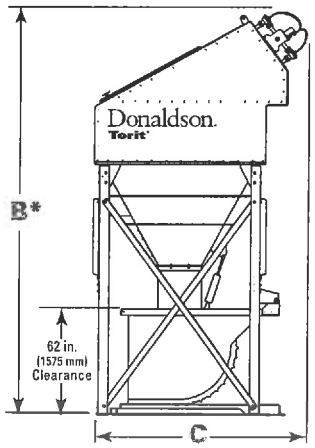
CPC-6, -8, -12, -16
Front View



CPC-6, -8, -12, -16
Side View



CPC-24 with optional dumpster hopper**
Front View

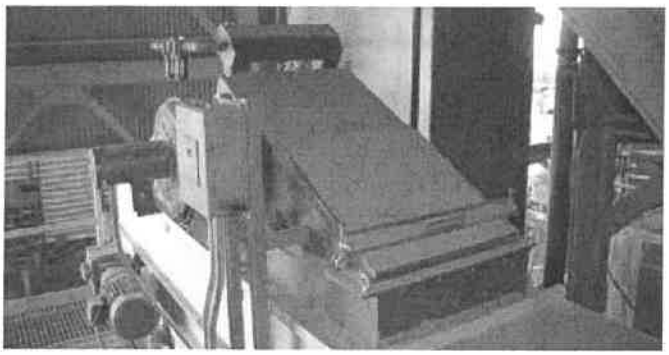


CPC-24 with optional dumpster hopper
Side View

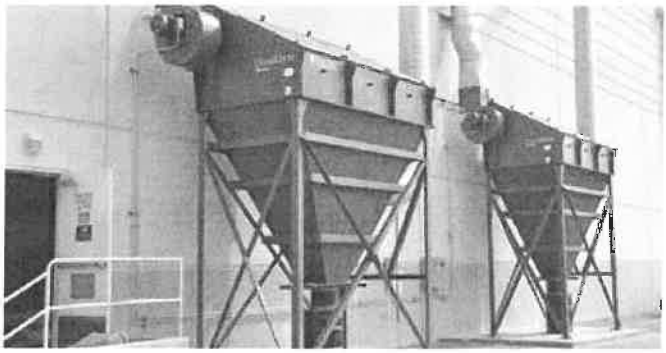
Model	Nominal Airflow Range†		No. of Filter Packs	PowerCore Filter Area		No. of Valves	Shipping Weight		Housing Rating ("wg)	Dimensions					
										A		B*		C***	
	cfm	m³/h		ft²	m²		lb	kg		in	mm	in	mm	in	mm
CPC-3	700 - 2,000	1,189 - 3,397	3	189	17.6	3	800	362.9	-20	36.8	934.7	118.4	3,007.4	55.5	1,409.7
CPC-4	1,400 - 2,700	2,378 - 4,586	4	252	23.4	4	1020	462.7	-20	46.8	1,188.7	134.2	3,408.7	55.5	1,409.7
CPC-6	2,100 - 4,100	3,567 - 6,964	6	378	35.1	6	1600	725.7	-20	38.6	980.4	154.2	3,916.7	85.0	2,159.0
CPC-8	2,800 - 5,400	4,756 - 9,173	8	504	46.8	8	1685	764.3	-20	48.5	1,231.9	154.2	3,916.7	85.0	2,159.0
CPC-12	4,200 - 8,200	7,134 - 13,929	12	756	70.2	12	2100	952.5	-20	70.0	1,778.0	154.2	3,916.7	85.0	2,159.0
CPC-16	5,600 - 11,000	9,512 - 18,685	16	1008	93.6	16	2915	1,322.2	-20	90.0	2,286.0	169.2	4,297.7	85.0	2,159.0
CPC-24	8,400 - 16,500	14,269 - 28,028	24	1512	140.5	24	3880	1,759.9	-20	132.0	3,352.8	152.2	3,865.9	85.0	2,159.0
CPC-32	11,200 - 22,000	19,025 - 37,370	32	2016	187.3	32	5310	2,408.6	-20	174.0	4,419.6	169.2	4,297.7	85.0	2,159.0
CPC-40	14,000 - 27,000	23,781 - 45,864	40	2520	234.1	40	6210	2,816.8	-20	216.0	5,486.4	154.7	3,929.4	85.0	2,159.0
CPC-48	16,800 - 33,000	28,537 - 56,055	48	3024	280.9	48	7760	3,519.9	-20	258.0	6,553.2	169.2	4,297.7	85.0	2,159.0

* For opening access door, allow a minimum of 2.5" (63.5 mm) above unit for models 3, 4, and a minimum of 20.5" (520.7 mm) for models 6, 8, 12, 16, 24, 32, 40, 48.
** CPC-24 through CPC-48 are available with optional pyramid hoppers, trough hoppers, or dumpster hoppers.
*** Standard hoppers. † Based on clean filters.

SMARTER PERFORMANCE ON MANY TYPES OF DUST

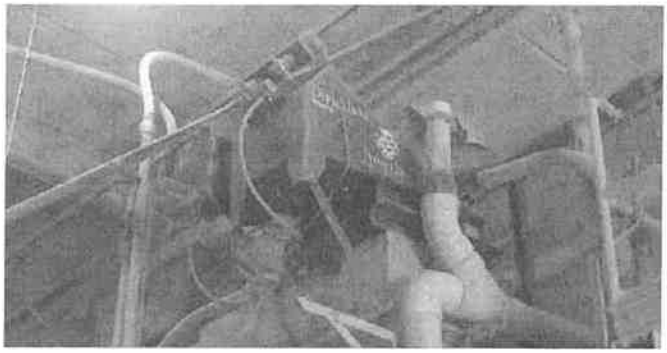


CPV-2 - Weigh belt feeder with limestone dust
800 cfm (1,359 m³/h)

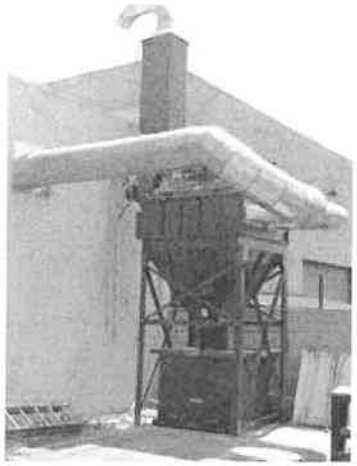


CPC-24 - Paper tissue manufacturing
7,600 cfm (12,910 m³/h)

CPV-6 - Direct bin venting distributor head
2,400 cfm (4,077 m³/h)



CPV-2 - Day bin with porcelain dust
800 cfm (1,359 m³/h)



CPC-12 on Wood Dust at furniture manufacturer
7,000 cfm (11,891 m³/h)

CPV-12 - Cement silo bin vent conveyor
3,700 cfm (6,285 m³/h)

CPC-3 - Powdered milk dust in cheese factory
1,200 cfm (2,038 m³/h)

VISIT DONALDSON.COM/TORITPOWERCORE FOR LATEST CASE STUDIES.

STANDARD FEATURES & AVAILABLE OPTIONS

TORIT POWERCORE CPC COLLECTORS

Collector Design	Std	Opt
Mild Steel Construction	✗	
Clean-Side Filter Pack Removal	✗	
Tool-Free Filter Removal	✗	
Hopper Access Panel	✗	
Sprinkler Taps	✗	
Mountable Fan Package (CPC-3 through CPC-24)		✗
Stainless Steel Construction		✗
Filter Packs		
PowerCore with Ultra-Web	✗	
PowerCore AS (Anti-Static) with Ultra-Web		✗
Paint System		
Textured Multi-Coat Paint Finish with 2,000-Hour Salt Spray Performance	✗	
Premium Duty Finish		✗
Custom Colors, Materials, and Finishes		✗
Pyramid Hopper Discharge Options		
Pyramid Hopper	✗	
Trough Hopper with High Inlet (CPC-16 through CPC-48)		✗
Dumpster Hopper (CPC-16 through CPC-48)		✗
Hopper Discharge		
Slide Gate Pack		✗
55-Gallon (208.2-Liter) Drum Covers		✗
Transitions for Rotary Valves		✗
Support Structure		
48" (1219.2 mm) Clearance Beneath Hopper	✗	
Leg Extensions		✗
Electrical Controls, Gauges and Enclosures		
Control Box NEMA Type 4 with Timer	✗	
Solenoid Enclosure NEMA Type 4	✗	
Magnehelic®* Gauge	✗	
Delta P Control NEMA Type 4 with Timer		✗
Delta P Plus Control NEMA Type 4 with Timer		✗
Delta P Control (no timer)		✗
Solenoid Enclosure NEMA Type 9		✗
Heated Solenoid Pack		✗
Heavy Duty Cold Climate Kit		✗
Photohelic®* Gauge		✗
Custom Control Panels		✗
Safety Features		
Explosion Vents		✗
Sprinkler Pack		✗
Platforms and Ladders (CPC 16-48)		✗
Electrical Grounding and Bonding		✗
Warranty		
10-Year Warranty	✗	

TORIT POWERCORE CPV COLLECTORS

Collector Design	Std	Opt
Mild Steel Construction	✗	
Clean-Side Filter Pack Removal	✗	
Tool-Free Filter Removal	✗	
Mountable Fan Package		✗
Outlet Weatherhood		✗
Stainless Steel Construction		✗
Vertical Orientation		✗
Filter Packs		
PowerCore Ultra-Web® (MERV 15)	✗	
PowerCore Ultra-Web SB (Spunbond) (MERV 15)		✗
PowerCore Ultra-Web AS (Anti-Static) (MERV 15)		✗
Paint System		
Textured Multi-Coat Paint Finish with 2,000-Hour Salt Spray Performance	✗	
Premium Duty Finish		✗
Custom Colors, Materials, and Finishes		✗
Safety Features		
Electrical Grounding & Bonding		✗
Electrical Controls, Gauges and Enclosures		
Control Box NEMA Type 4 with Timer	✗	
Solenoid Enclosure NEMA Type 4	✗	
Magnehelic®* Gauge	✗	
Delta P Control NEMA Type 4 with Timer		✗
Delta P Plus Control NEMA Type 4 with Timer		✗
Delta P Control (no timer)		✗
Solenoid Enclosure NEMA Type 9		✗
Heated Solenoid Pack		✗
Heavy Duty Cold Climate Kit		✗
Photohelic®* Gauge		✗
Custom Control Panels		✗
Warranty		
10-Year Warranty	✗	

* Magnehelic and Photohelic are registered trademarks of Dwyer Instruments, Inc.

Global Support

- Facilities in 37 countries
- 40 manufacturing plants and 14 distribution centers

Leading Technology

- Over 1,000 engineers and scientists worldwide
- Broad range of innovative collectors and filters
- 100s of filter media formulations

Experience and Service

- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours

Call Donaldson® Torit® to get cleaner air today:

800-365-1331

Donaldson.com/ToritPowerCore

Donaldson
FILTRATION SOLUTIONS

Tel 800-365-1331 (USA)
Tel 800-343-3639 (within Mexico)

donaldsontorit@donaldson.com
donaldsontorit.com

Donaldson Company, Inc.
Torit
P.O. Box 1299
Minneapolis, MN
55440-1299 U.S.A.

EXACTLY WHAT YOU NEED.™

Torit PowerCore Dust Collectors - CP Series (04/14)

Donaldson
Torit

POWERCORE® CP FILTER PACK

ENGINEERED FOR DUST COLLECTION

- Ultra-Web® nanofiber media ensures longer filter life at a significantly lower pressure drop
- Superior particle release due to surface filtration
- Fluted media construction prevents bridging in fibrous or agglomerative applications
- Smaller and lightweight filter pack design with built-in handles
- Easy filter changeout for quicker maintenance — no tools required
- MERV* 13 filtration efficiency rating per ASHRAE 52.2-2007

PowerCore® CP Filter Pack
(Available in Standard, Spunbond and Anti-Static)

PROVEN TECHNOLOGY THAT PERFORMS

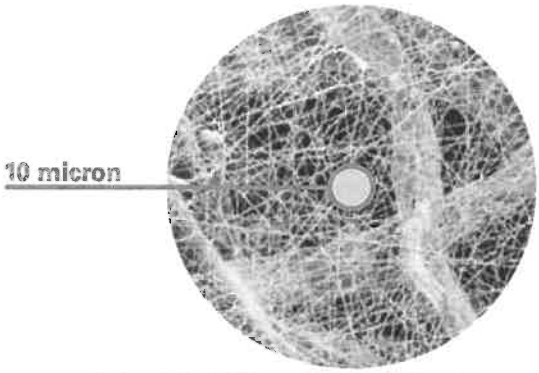
Proven and proprietary Ultra-Web® filter media delivers longer filter life, cleaner air and greater cost savings than other traditional filter media. It is made with an electrospinning process that produces a very fine, continuous, resilient fiber of 0.2-0.3 microns in diameter.

PowerCore filter packs with Ultra-Web media keep dust on the surface of the fluted channels where it is easily cleaned off unlike conventional filter bag material that depth loads, like 16 oz. (453.6 g) polyester.

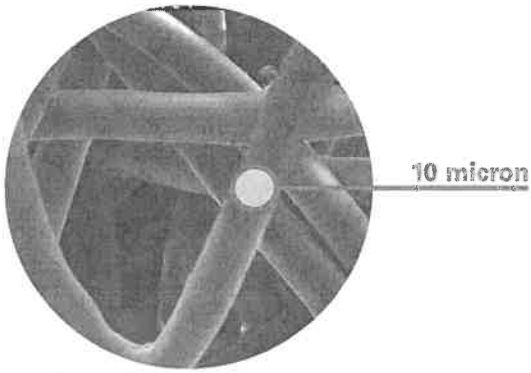
- Surface loading promotes filter cleaning and longer life
- Better pulse cleaning lowers operational pressure drop and energy use

SEM† IMAGES

1 micron = 1/25,400 of an inch (1/1,000 millimeters)



Ultra-Web Nanofiber Technology (600x)



16 oz. Polyester (600x)

† Scanning Electron Microscope.
* Refer to Technical Information on page 2.

APPLICATIONS

- Premium performance on fine, dry, fibrous and/or abrasive dust
- Longer life in aggressive/challenging applications
- Optional Spunbond or Anti-Static (AS) media available
- Spunbond version has excellent moisture and chemical resistance

MEDIA COMPATIBILITY DATA

Temperature Resistance	150°F 65°C	
Moisture Absorption**	Maximum 14% @ 70°F (21°C) and 65% RH	
Chemical Tolerance***	Acids→Poor Bases→Fair	Oxidants→Poor Solvents→Fair
Abrasion Resistance	Excellent per TAPPI 476 (Taber Method)	
Moisture Absorption** for Spunbond	0.2–0.5% @ 70°F (21°C) and 65% RH	
Chemical Tolerance*** for Spunbond	Acids→Good Bases→Good	Oxidants→Good Solvents→Good

SPECIFICATIONS

MEDIA COMPOSITION

Nanofiber Technology	Durable proprietary synthetic filter media fiber and polymer Mean fiber diameter of 0.2 µm
Substrates	• Proprietary blend of cellulose fibers • Spunbond Polyester • Anti-static (AS) version per ESD STM 11.11-2001 Resistance less than 10^8 OHM

MEDIA EFFICIENCY

U.S. Efficiency Rating	MERV* 13 per ASHRAE 52.2-2007

FILTER PACK CONSTRUCTION

Standard Construction	Obround design Fluted media configuration Urethane gasket Built-in handle

CURRENT AVAILABLE CONFIGURATIONS

	Dimensions		PowerCore		
Collector Models	in	mm	Standard	Spunbond	Anti-Static
CPC	22.3 x 7.5 x 7.0	566.42 x 190.50 x 177.80	•	•	•
CPV	22.3 x 7.5 x 7.0	566.42 x 190.50 x 177.80	•	•	•

* The Minimum Efficiency Reporting Value (MERV) of this filter cartridge has been determined through independent laboratory testing using ASHRAE 52.2 (2007) test standards. The MERV rating was determined at a face velocity of 118 feet per minute (36.0 meters per minute) and loading up to four inches (101.6 millimeters) water gauge. Actual efficiency of any filter cartridge will vary according to the specific application parameters. Dust concentration, airflow, particle characteristics, and pulse cleaning methods all affect filtration efficiency.

** Environmental conditions involving combinations of high temperature, corrosive material, and moisture can reduce media strength. Reduction in media strength may compromise cartridge integrity and performance.

*** A combination of chemicals may alter fiber resistance to the specified performance level. Chemical attack may compromise cartridge integrity and performance.

Significantly improve the performance of your collector with genuine Donaldson Torit replacement filters and parts. **Call Donaldson Torit today 800-365-1331.**

Donaldson
FILTRATION SOLUTIONS

Tel 800-365-1331 (USA)
Tel 800-343-3639 (within Mexico)

donaldsontorit@donaldson.com
donaldsontorit.com

Donaldson Company, Inc.
Torit
P.O. Box 1299
Minneapolis, MN
55440-1299 U.S.A.

EXACTLY WHAT YOU NEED.™

Powercore CP Filter Pack (11/12)

ATTACHMENT N

CEMENT BULK PLANT EMISSION CALCULATIONS

Hourly PTE Emissions (Control Device 1C – shown as DC1 on Tank 8 in Attachment F)

Emissions from the dust collector (Control Device 1C) were estimated using two different methods. The first method used manufacturer's supplied information and assumed full usage of the dust collector to calculate an hourly potential-to-emit. The second method used AP-42 equations and an assumed control efficiency to estimate actual emissions. The following calculations were made:

1) Manufacturer's Data

   According to information provided by Donaldson Torit and Wilco, the dust collector achieves emissions below 0.001 grains per cubic foot, with a maximum flow rate of 3,000 ACFM. This equates to the following hourly potential-to-emit:

   PTE = (0.001 grains/CF)*(3,000 ACFM)*(60 min/hr)*(0.00014 lb/grain)
   PTE = 0.025 lb/hour = 0.11 tpy (assuming 24/365 operation)

2) AP-42 Equations

   Allied has estimated that conservatively, 11.8 tons (250 sacks) of cement can be blended with 2.3 tons (50 sacks) of cement supplements (fly ash, bicarbonate, barite, and others) and 14.1 tons (300 sacks) of mixture loaded per hour. Additionally, one delivery vehicle containing 23.5 tons of cement and one delivery vehicle containing 23.5 tons of cement supplement at most could be expected within a one-hour period due to traffic and loading restrictions. These hourly estimates, along with a control efficiency of 99% for the dust collector, provide the basis for estimation of hourly PTE emissions.

   Processes resulting in emissions and emission points are described below:

   Cement Receiving (Control Device 1C)

   Emissions are due to transfers from a delivery truck to the cement storage silos, which are vented to the waste tank and Donaldson Torit dust collector (1C). It is assumed that one delivery can occur in one hour (23.5 tons per hour). Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

   PM-10 PTE = (23.5 tons/hr)*(0.47 lb/ton)*(1-.99) = 0.11 lb/hr
   Total PM PTE = (23.5 tons/hr)*(0.73 lb/ton)*(1-.99) = 0.17 lb/hr

   Cement Supplement Receiving (Control Device 1C)

   Emissions are due to transfers from delivery trucks to the supplement storage silos, which are vented to the waste tank and Donaldson Torit dust collector (1C). It is assumed that one delivery can occur in one hour (23.5 tons per hour). Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 PTE = (23.5 tons/hr)*(1.10 lb/ton)*(1-.99) = 0.26 lb/hr
Total PM PTE = (23.5 tons/hr)*(3.14 lb/ton)*(1-.99) = 0.74 lb/hr

Weighing (Control Device 2C)

Emissions are due to transfers from the storage silos to the scale tank, which is vented to the existing baghouse dust collector (2C). Emissions from this control device are calculated separately.

Blending (Control Device 1C)

Emissions are due to transfers from the scale tank to the blend tank, which is vented to the waste tank and Donaldson Torit dust collector (1C). It is assumed that the maximum hourly production rate of cement mixture is 14.1 tons (300 sacks) per hour. Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 PTE = (14.1 tons/hr)*(0.47 lb/ton)*(1-.99) = 0.07 lb/hr
Total PM PTE = (14.1 tons/hr)*(0.73 lb/ton)*(1-.99) = 0.10 lb/hr

Shipping (Control Device 1C)

Emissions are due to transfer of the mixed cement from the blend tank to a transport vehicle. The transfer is vented to the waste tank and Donaldson Torit dust collector (1C). It is assumed that the maximum hourly production rate of cement mixture is 14.1 tons (300 sacks) per hour. Emissions were estimated by multiplying the throughput by the emission factor from AP-42 (6/06), Table 11.12-2.

PM-10 PTE = (14.1 tons/hr)*(0.31 lb/ton)*(1-.99) = 0.04 lb/hr
Total PM PTE = (14.1 tons/hr)*(1.118 lb/ton)*(1-.99) = 0.16 lb/hr

Total PTE (Control Device 1C)

Therefore, the following PTE estimates are made by adding the PTE estimates for each process:

PM-10 PTE = 0.48 lb/hr
Total PM PTE = 1.17 lb/hr

These hourly PTE estimates are much higher (more conservative) than the estimate from the manufacturer's data. Therefore, the assumption of 99% control efficiency is quite conservative.

Hourly PTE Emissions (Control Device 2C – shown as DC2 on Tank 9 in Attachment F)

Emissions from the baghouse dust collector (Control Device 2C) were estimated using AP-42 equations to estimate actual emissions. The following calculations were made:

Weighing (Control Device 2C)

Emissions are due to transfers from the storage silos to the scale tank, which is vented to the existing baghouse dust collector (2C). It is assumed that the maximum hourly production rate of cement mixture is 14.1 tons (300 sacks) per hour. Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 PTE = (14.1 tons/hr)*(0.0028 lb/ton)*(1-.99) = 0.00039 lb/hr
Total PM PTE = (14.1 tons/hr)*(0.0048 lb/ton)*(1-.99) = 0.00068 lb/hr

Annual Emissions (Control Device 1C – shown as DC1 on Tank 8 in Attachment F)

Emissions from the dust collector (Control Device 1C) were estimated using AP-42 equations and an assumed control efficiency to estimate actual emissions. The facility will operate significantly less than 24 hours per day, 365 days per year; Allied has estimated that the facility would not have an annual throughput greater than 39,480 tons (840,000 sacks) of cement blended with 7,520 tons (160,000 sacks) of cement supplements (fly ash, bicarbonate, barite, and others), with 47,000 tons (1,000,000 sacks) of cement mixture loaded per year. This annual estimate, along with a control efficiency of 99%, provides the basis for estimation of actual annual emissions.

Cement Receiving (Control Device 1C)

Emissions are due to transfers from delivery trucks to the cement storage silos, which are vented to the waste tank and Donaldson Torit dust collector (1C). Total annual deliveries of cement are estimated not to exceed 39,950 tons/yr. Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 = (39,480 tons/hr)*(0.47 lb/ton)*(1-.99) = 186 lb/yr = 0.093 tpy
Total PM = (39,480 tons/hr)*(0.73 lb/ton)*(1-.99) = 288 lb/yr = 0.144 tpy

Cement Supplement Receiving (Control Device 1C)

Emissions are due to transfers from delivery trucks to the supplement storage silos, which are vented to the waste tank and Donaldson Torit dust collector (1C). Total annual deliveries of cement supplements are estimated not to exceed 7,520 tons/yr. Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 = (7,520 tons/yr)*(1.10 lb/ton)*(1-.99) = 83 lb/yr = 0.041 tpy
Total PM = (7,520 tons/yr)*(3.14 lb/ton)*(1-.99) = 236 lb/yr = 0.118 tpy

Weighing (Control Device 2C)

Emissions are due to transfers from the storage silos to the scale tank, which is vented to the baghouse dust collector (2C). Emissions from this control device are calculated separately.

Blending (Control Device 1C)

Emissions are due to transfers from the scale tank to the blend tank, which is vented to the waste tank and Donaldson Torit dust collector (1C). It is assumed that the maximum annual production of cement mixture is 47,000 tons/yr. Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 = (47,000 tons/yr)*(0.47 lb/ton)*(1-.99) = 221 lb/yr = 0.110 tpy
Total PM = (47,000 tons/yr)*(0.73 lb/ton)*(1-.99) = 343 lb/yr = 0.172 tpy

Shipping (Control Device 1C)

Emissions are due to transfer of the mixed cement from the blend tank to a transport vehicle. The transfer is vented to the waste tank and Donaldson Torit dust collector (1C). It is assumed that the maximum annual production of cement mixture is 47,000 tons/yr. Emissions were estimated by multiplying the throughput by the emission factor from AP-42 (6/06), Table 11.12-2.

PM-10 = (47,000 tons/yr)*(0.31 lb/ton)*(1-.99) = 146 lb/yr = 0.073 tpy
Total PM = (47,000 tons/yr)*(1.118 lb/ton)*(1-.99) = 525 lb/yr = 0.263 tpy

Total Annual Emissions (Control Device 1C)

Therefore, the following annual emission estimates are made by adding the estimates for each process, which are still higher (more conservative) than the estimate from the manufacturer's data that assume 24/365 operation of the dust collector:

PM-10 = 0.317 tpy
Total PM = 0.697 tpy

Annual Emissions (Control Device 2C – shown as DC2 on Tank 9 in Attachment F)

Emissions from the baghouse dust collector (Control Device 2C) were estimated using AP-42 equations to estimate actual emissions. The following calculations were made:

Weighing (Control Device 2C)

Emissions are due to transfers from the storage silos to the scale tank, which is vented to the existing baghouse dust collector (2C). It is assumed that the maximum annual production of cement mixture is 47,000 tons/yr. Emissions were estimated as follows using emission factors from AP-42 (6/06), Table 11.12-2.

PM-10 PTE = (47,000 tons/yr)*(0.0028 lb/ton)*(1-.99) = 1.32 lb/yr = 0.00066 tpy
Total PM PTE = (47,000 tons/yr)*(0.0048 lb/ton)*(1-.99) = 2.26 lb/yr = 0.0011 tpy

Donaldson
FILTRATION SOLUTIONS

Donaldson Company, Inc.
1400 West 94th Street
Bloomington, MN 55431 USA

Mailing Address
PO Box 1299
Minneapolis, MN 55440 USA

Wilco Machine and Fab
IG#10035168
Attn: Mr. Tyler Worden
Address: 1328 South Broadway
Marlow, OK 73055

June 6, 2014

Reference: Wilco Machine and Fab Emission Guarantee for a Donaldson® Torit® PowerCore® CP Series (CPV-8) dust collector with Donaldson Torit PowerCore Ultra-Web® CP filter packs.

Equipment	(1) Donaldson Torit PowerCore CP Series (CPV-8) dust collector equipped with (8) Donaldson Torit PowerCore Ultra-Web CP filter packs.
Application	Bin venting
Dust	Silica Sand
Inlet Loading	Less than 5 grains per dry standard cubic foot
Air Volume	3,000 CFM
Gas Stream	Ambient with a maximum temperature of 120°F
Collector Location	Outside
Collector Exhaust	Outside

The Donaldson® Torit® PowerCore® CP Series (CPV-8) dust collector equipped with (8) Donaldson Torit PowerCore Ultra-Web CP filter packs. Dividing the actual air volume by the number of filter packs provides 375 CFM per pack. Based on the Donaldson Torit CP Series (CPV-8) dust collector being installed and operated in accordance with the CPV Installation, Operation, and Maintenance Manual; accepted industrial ventilation practices; and under the conditions stated above, we are offering the following emission guarantee utilizing Donaldson Torit PowerCore Ultra-Web CP filter packs. This guarantee does not cover filter failure due to negligence or improper operation and specifically excludes failure due to exceeding the recommended air-to-media ratio; damage due to fire, corrosion, abrasion or physical abuse; wet or oily compressed air usage, or the lack of adequate compressed air for proper filter cleaning.

Emission: The maximum average particulate emissions in the discharge gas stream from the Donaldson Torit PowerCore CP Series (CPV-8) dust collector using the Donaldson Torit PowerCore Ultra-Web CP filter packs will not exceed 0.001 grains per dry standard cubic foot over the life of the media.

The guarantee period ends after 4000 hours of operation or 12 months from the date of shipment, whichever is shorter. This provides ample time to confirm performance meets the stipulated thresholds in this document.

[The emissions portion of this warranty requires that all emission testing be performed by a qualified testing agency agreed upon by Donaldson Company and Wilco Machine and Fab. Such testing will be performed in accordance with recognized testing procedures, agreed upon by both Donaldson Company and Wilco Machine and Fab. Fees for the testing will be the responsibility of Wilco Machine and Fab.]

Donaldson
FILTRATION SOLUTIONS

Donaldson Company, Inc.
1400 West 94th Street
Bloomington, MN 55431 USA

Mailing Address
PO Box 1299
Minneapolis, MN 55440 USA

Pressure Drop: Average pressure drop not to exceed 6 inches of water gauge on a continual basis as measured across Donaldson Torit PowerCore Ultra-Web CP filter packs and tube sheet of the Donaldson Torit PowerCore CP Series (CPV-8) dust collector.

During the warranty period, Donaldson Company reserves the right to make any modifications, adjustments or take other necessary corrective actions, at Donaldson's expense, should the guarantee not be met by equipment malfunction due to defects in materials and/or workmanship as supplied by Donaldson Company. In no event shall Donaldson Company be liable for incidental, special or consequential damages resulting from nonconformity. Failure to use genuine Donaldson replacement parts or changes to the original system, either process or engineering, will cancel this guarantee.

Regards,

Tom Miller
Regional Sales Director

Guarantee Number: 2014nhil0601 Emissions Guarantee

ATTACHMENT O

MONITORING/RECORDKEEPING/REPORTING/TESTING

Bulk Plant Maintenance

A. DAILY

1) Inspect all plumbing, air lines, valves, and silos.
2) Check compressors, oil, air dryer, filters, and cleanliness.
3) Start compressors and check pressure shutoff limits.
4) Check for proper operation of air valves.
5) Pressurize plumbing and inspect for leaking valves.
6) Check dust collector systems to insure they are pulling vacuum on tanks.
7) Check weight indicators and scale system.
8) Inspect load and vent lines going to bulk trucks.

B. WEEKLY

1) Perform daily inspection.
2) Check dust collector socks for wear, clean, and replace if needed.
3) Inspect dust collector exhaust motor and fan, clean and lubricate.
4) Inspect and test pressure relief valves on compressors, plumbing, silos.
5) Clean and paint any replacement parts or weathered areas.

ATTACHMENT P

PUBLIC NOTICE

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Allied OFS, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class II Administrative Update of the New Source Review (NSR) Permit for a bulk cement loading operation located on 1036 E. Main Street in Bridgeport, Harrison County, West Virginia. The latitude and longitude coordinates are: 39.284577, -80.231799.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be increased to:

PM = 2.88 tpy
PM10 = 1.31 tpy
VOCs = 0.001 tpy

Two new additional bulk cement silos will be added to the existing bulk cement plant. Startup of the new silos is planned to begin on or about the 30th day of November, 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.
Dated this the 17th day of October, 2016.

By: Allied OFS, LLC
Brian Lochkos CFO
c/o Mike Farnsworth
1036 E. Main Street
Bridgeport, WV 26330