

RECEIVED

FEB 08 2006

BUREAU OF AIR REGULATION

**APPLICATION FOR MINOR SOURCE
AIR CONSTRUCTION PERMIT
NEW ABSORBER DRYER SYSTEM
JACKSONVILLE, FLORIDA**

**Prepared For:
Cedar Bay Generating Company
9640 Eastport Road
Jacksonville, Florida 32218-2260**

**Prepared By:
Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500**

February 2006

0637514

DISTRIBUTION:

4 Copies – FDEP

2 Copies – Cedar Bay Generating Company

1 Copy – Golder Associates Inc.

APPLICATION FOR AIR PERMIT – LONG FORM



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Cedar Bay Generating Company, L.P.	
2. Site Name: Cedar Bay Cogeneration Facility	
3. Facility Identification Number: 0310337	
4. Facility Location...: Cedar Bay Cogeneration Facility Street Address or Other Locator: 9640 Eastport Road City: Jacksonville County: Duval Zip Code: 32218-2260	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Jeffery Walker, Environmental Manager	
2. Application Contact Mailing Address... Organization/Firm: Cedar Bay Generating Company Street Address: 9640 Eastport Road City: Jacksonville State: FL Zip Code: 32218-2260	
3. Application Contact Telephone Numbers... Telephone: (904) 696-1547 ext. Fax: (904) 751-7320	
4. Application Contact Email Address: jeffwalker@cogentrix.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<i>2-8-06</i>
2. Project Number(s):	<i>0310337-011-AC</i>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

Air construction permit.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit
(Concurrent Processing)**

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

This application is a request for authorization from the FDEP to install a new absorber dryer train.

See Part II.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001	Absorber Dryer System Train – 3	ACIE	NA

Application Processing Fee

Check one: Attached - Amount: \$ _____

Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Martin Kreft, General Manager
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Cedar Bay Generating Company Street Address: 9640 Eastport Road City: Jacksonville State: FL Zip Code: 32218-2260
3. Owner/Authorized Representative Telephone Numbers... Telephone: (904) 696-1143 ext. Fax: (904) 751-7320
4. Owner/Authorized Representative Email Address: martinkreft@cogentrix.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i>  Signature  Date

APPLICATION INFORMATION

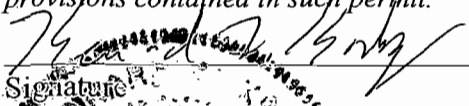
Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

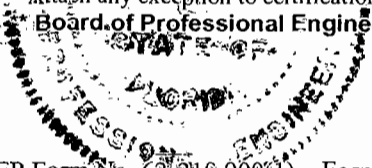
1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application. _____ Signature _____ Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky Registration Number: 14996
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext.516 Fax: (352) 336-6603
4. Professional Engineer Email Address: kkosky@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>  Signature _____ Date <u>2/3/06</u>

* Attach any exception to certification statement.
Board of Professional Engineers Certificate of Authorization #00001670



II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 441.610 North (km) 3365.552		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 30/25/21 Longitude (DD/MM/SS) 81/36/23	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911
7. Facility Comment: Applicant is seeking authorization to install a new absorber dryer system train. See Part II.			

Facility Contact

1. Facility Contact Name: Jeffery Walker, Environmental Manager
2. Facility Contact Mailing Address... Organization/Firm: Cedar Bay Generating Company Street Address: 9640 Eastport Road City: Jacksonville State: FL Zip Code: 32218-2260
3. Facility Contact Telephone Numbers: Telephone: (904) 696-1547 ext. Fax: (904)751-7320
4. Facility Contact Email Address: jeffwalker@cogentrix.com

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: _____ Street Address: City: _____ State: _____ Zip Code: _____
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
4. Facility Primary Responsible Official Email Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment: The applicable facility-wide conditions contained in the Title V permit will not change as a result of this application.	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM - Particulate Matter Total	A	N
PM₁₀ - Particulate Matter	A	N
NO_x - Nitrogen Oxides	A	N
SO₂ - Sulfur Dioxide	A	N
CO - Carbon Monoxide	A	N
VOC - Volatile Organic Compounds	A	N

FACILITY INFORMATION

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID Nos. Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
7. Facility-Wide or Multi-Unit Emissions Cap Comment:					

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Jan 2004</u>
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Jan 2004</u>
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>Jan 2004</u>

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: <u>See Part II</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>See Part II</u>
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities (Required for initial/renewal applications only):
 Attached, Document ID: _____ Not Applicable (revision application)
2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
 Attached, Document ID: _____
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
 Attached, Document ID: _____
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
 Attached, Document ID: _____
 Equipment/Activities On site but Not Required to be Individually Listed
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
 Attached, Document ID: _____ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
 Attached, Document ID: _____ Not Applicable

Additional Requirements Comment

See Part II.

EMISSIONS UNIT INFORMATION

Section [1]
ADS Train 3

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application – For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application – For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an “unregulated emissions unit” does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1]
ADS Train 3

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
 - The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
 - This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
 - This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Absorber Dryer System (ADS) Train 3

3. Emissions Unit Identification Number: **001**

4. Emissions Unit Status Code: C	5. Commence Construction Date: 4/1/06	6. Initial Startup Date: 12/31/2006	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---	---	--	--

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
ADS Train 3 crushes and dries limestone for use in the CFB boilers (see Part II).

EMISSIONS UNIT INFORMATION

Section [1]

ADS Train 3

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Fabric Filter – Medium Temperature

2. Control Device or Method Code(s): **017**

EMISSIONS UNIT INFORMATION

Section **[1]**
ADS Train 3

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 44 tons/hr limestone
2. Maximum Production Rate:
3. Maximum Heat Input Rate: 13.4 million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment:

EMISSIONS UNIT INFORMATION

Section [1]
 ADS Train 3

C. EMISSION POINT (STACK/VENT) INFORMATION
 (Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: See Part II		2. Emission Point Type Code: 2	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: ADS Train 2 stack			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 63 feet	7. Exit Diameter: 4.2 feet	
8. Exit Temperature: 180 °F	9. Actual Volumetric Flow Rate: 20,500 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: 17,500 dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 441.66 North (km): 3365.68		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: ADS Train 3 will exhaust through the stack for ADS Train 2.			

EMISSIONS UNIT INFORMATION

Section [1]
 ADS Train 3

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): Segment 1 of 2: No. 2 Diesel fuel combustion		
2. Source Classification Code (SCC): 30590001	3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 0.1	5. Maximum Annual Rate: 876	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.05	8. Maximum % Ash:	9. Million Btu per SCC Unit: 134
10. Segment Comment: See Part II.		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): Segment 2 of 2: Mineral Products - Other		
2. Source Classification Code (SCC): 30599999	3. SCC Units: Tons	
4. Maximum Hourly Rate: 44	5. Maximum Annual Rate: 385,440	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Limestone capacities provided. See Part II.		

EMISSIONS UNIT INFORMATION

**Section [1]
ADS Train 3**

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	017		EL
PM ₁₀	017		EL
NO _x			NS
SO ₂			EL
CO			NS
VOC			NS

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
ADS Train 3

Page [1] of [6]
Particulate Matter Total - PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM (TSP)		2. Total Percent Efficiency of Control: 99+	
3. Potential Emissions: 0.45 lb/hour 1.97 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.003 gr/dscf Reference: Decker Industries		7. Emissions Method Code: 0	
8. Calculation of Emissions: 0.003 gr/dscf x 17,500 dscf/min x 1 lb/7,000 gr x 60 min/hr = 0.45 lb/hr 0.45 lb/hr x 8,760 hr/yr x ton/2,000 lbs = 1.97 TPY			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: See Part II.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
ADS Train 3

Page [1] of [6]
Particulate Matter Total - PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.003 gr/dscf / 5 percent opacity	4. Equivalent Allowable Emissions: 0.45 lb/hour 1.97 tons/year
5. Method of Compliance: Initial compliance test using EPA Method 5 or 17; 40 CFR, Appendix A; subsequent tests using EPA Method 9.	
6. Allowable Emissions Comment (Description of Operating Method): See Part II.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]
ADS Train 3

POLLUTANT DETAIL INFORMATION

Page [2] of [6]
Particulate Matter - PM₁₀

**FI. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM₁₀		2. Total Percent Efficiency of Control: 99+	
3. Potential Emissions: 0.45 lb/hour 1.97 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.003 gr/dscf Reference: Decker Industries		7. Emissions Method Code: 0	
8. Calculation of Emissions: 0.003 gr/dscf x 17,500 dscf/min x 1 lb/7,000 gr x 60 min/hr = 0.45 lb/hr 0.45 lb/hr x 8,760 hr/yr x ton/2,000 lbs = 1.97 TPY			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: See Part II.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
ADS Train 3

Page [2] of [6]
Particulate Matter - PM₁₀

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.003 g/dscf / 5 percent opacity	4. Equivalent Allowable Emissions: 0.45 lb/hour 1.97 tons/year
5. Method of Compliance: Initial compliance test using Method 5 or 17; 40 CFR, Appendix A; subsequent tests using EPA Method 9.	
6. Allowable Emissions Comment (Description of Operating Method): See Part II.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: SO₂	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.7 lb/hour 3.1tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: 0.05 percent sulfur distillate oil Reference:	7. Emissions Method Code: 0
8. Calculation of Emissions: 0.05 percent x 1/100 x 100 gal/hr x 7 lb/gal x 2 lb SO₂/lb sulfur = 0.7 lb/hr 0.7 lb/hr x 8,760 hr/yr x ton/2,000 lb = 3.1 TPY	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: See Part II.	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.05 percent sulfur	4. Equivalent Allowable Emissions: 0.7 lb/hour 3.1 tons/year
5. Method of Compliance: Fuel vendor analysis	
6. Allowable Emissions Comment (Description of Operating Method): See Part II.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: NO_x		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.6 lb/hour 7.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.12 lb/MMBtu Reference: Decker Industries		7. Emissions Method Code: 0	
8. Calculation of Emissions: 13.4 MMBtu/hr x 0.12 lb/MMBtu = 1.6 lb/hr 1.6 lb/hr x 8,760 hr/yr x ton/2,000 lb = 7.0 TPY			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: See Part II.			

EMISSIONS UNIT INFORMATION

Section [1]
ADS Train 3

POLLUTANT DETAIL INFORMATION

Page [4] of [6]
Nitrogen Oxides

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: 1.6 lb/hour 7.0 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): See Part II.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 2.1lb/hour 9.4tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.16 lb/MMBtu Reference: Decker Industries		7. Emissions Method Code: 0	
8. Calculation of Emissions: 13.4 MMBtu/hr x 0.16 lb/MMBtu = 2.1 lb/hr 2.1 lb/hr x 8,760 hr/yr x ton/2,000 lb = 9.4 TPY			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: See Part II.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: 2.1 lb/hour 9.4 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): See Part II.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.02 lb/hour 0.09 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.2 lb/1,000 gal Reference: AP-42		7. Emissions Method Code: 0	
8. Calculation of Emissions: 100 gal/hr x 0.2 lb/1,000 gal = 0.02 lb/hr 0.02 lb/hr x 8,760 hr/yr x ton/2,000 lb = 0.09 TPY			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: See Part II.			

EMISSIONS UNIT INFORMATION

Section [1]
ADS Train 3

POLLUTANT DETAIL INFORMATION

Page [6] of [6]
Volatile Organic Compounds

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: 0.02 lb/hour 0.09 tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method): See Part II.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]

ADS Train 3

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour	
4. Method of Compliance: EPA Method 9.	
5. Visible Emissions Comment: Exceptional conditions allowed for 2 hours per 24-hour period by Rule 62-210.700(1) for Startup, Shutdown, and Malfunction.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [1]
ADS Train 3

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [1]

ADS Train 3

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: See Part II <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: See Part II <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: See Part II <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input checked="" type="checkbox"/> Attached, Document ID: See Part II <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]

ADS Train 3

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NO _x Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NO _x Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]

ADS Train 3

Additional Requirements Comment

[Empty rectangular box for Additional Requirements Comment]

PART II

PART II

1.0 INTRODUCTION

Cedar Bay Generating Company, L.P. is seeking authorization from the Florida Department of Environmental Protection (FDEP) to install a new Absorber Dryer System (ADS) at the Cedar Bay Cogeneration Facility. Currently, the facility has two 40-ton-per-hour (TPH) ADS trains that process limestone as a reactant for the circulating fluidized bed (CFB) boilers to control sulfur dioxide (SO₂) and other acid gases. Limestone is sized (crushed) and dried in the existing ADS trains for use in the CFB boilers. The current systems are identical and referred to as ADS Trains 1 and 2. These existing systems are identified in the Title V permit as Emission Units 004 and 005. The new system will be referred to as ADS Train 3 and will provide a more consistent reactant than currently available from the existing ADS trains. The existing ADS trains have experienced operational problems and are near the end of their useful life without refurbishment.

2.0 PROJECT DESCRIPTION

The new ADS system will consist of material-handling equipment and sizing and drying equipment to provide 44 TPH of limestone as the reactant in the existing CFB boilers. An impact mill will be used to size the limestone to nominal size of 98 to 99 percent passing 18-mesh sieves. A heater, rated at 13.4 Million British thermal units per hour (MMBtu/hr), supplies heat to dry the limestone that meets the requirements for the CFB boilers (1-percent moisture). Similar to the existing systems, a fabric filter will be used for particulate matter (PM) control. Figure 1 presents a flow diagram of the proposed system. The limestone reactant prepared by the new ADS Train 3 will be stored and handled using the existing systems that supply limestone to the CFB boilers. The exhaust of the new ADS Train 3 will be through the existing stack for ADS Train 2. The existing stack will be equipped with an isolation damper that will allow the initial testing of the project. After construction, the new ADS Train 3 will be used as the primary system supplying reactant to the CFB boilers, while the existing ADS trains will be used as backup. In the future these trains may be refurbished.

3.0 AIR EMISSIONS

The air emissions for the project are listed in Table 1. The new ADS Train 3 will have a MikroPul fabric filter system using pulse jet technology for PM removal. The baghouse size will be about 5,700 cubic feet with an air-to-cloth ratio of 3.65 to 1. Attachment A provides manufacturer information that is representative of the fabric filter system to be installed for the project. The manufacturer guarantee is 0.003 grains per dry standard cubic feet (gr/dscf).

Table 2 presents the estimated fugitive PM/PM₁₀ emissions associated with limestone handling. The amount of limestone is based on the full capacity of the new ADS Train 3. These emission estimates are conservative since the moisture content of the limestone is the design specification. Moisture content is typically greater, which would result in lower PM/PM₁₀ emissions.

4.0 REGULATORY APPLICABILITY

Authorization for this project is being sought independently of the existing ADS Trains 1 and 2. The maximum capacities and fuel usage requested is 44 TPH and 385,440 tons per year (TPY) for limestone and 100 gallons per hour and 876,000 gallons per year for No. 2 distillate oil use. The maximum potential air emissions for the project at the requested capacities are less than the thresholds requiring review under the Prevention of Significant Deterioration (PSD) rules in Chapter 62-212 of the Florida Administrative Code (F.A.C.). The maximum potential emissions for PM/PM₁₀, SO₂, NO_x, CO, and VOC are 1.97, 3.1, 7.0, 9.4, and 0.09 TPY, respectively. The PSD thresholds are 25/15, 40, 40, 100, and 40 TPY, for PM/PM₁₀, SO₂, NO_x, CO, and VOC, respectively. As a result, the project requires a minor source air construction permit pursuant to the FDEP rules.

The grinding of limestone for use in the CFB boilers is subject to the NSPS codified in 40 CFR Part 60 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants. Limestone, is defined as a nonmetallic mineral and the crushing or grinding of a nonmetallic mineral is an affected facility under the NSPS. The NSPS apply to certain activities with the most stringent requirements being a PM emission limit of 0.05 gram per dry standard cubic meter (gr/dscm) and 7-percent opacity. The emissions associated with the new ADS train will meet these requirements. The PM emission limit of 0.05 gr/dscm is equivalent to 0.022 gr/dscf, which is much higher than that being proposed for the project. The proposed opacity limit for the project is 5-percent opacity.

Based on the regulatory applicability for the project, Cedar Bay requests FDEP's consideration of the following permit conditions. These conditions are similar to those currently applicable to ADS Trains 1 and 2.

Permitted Capacity. The maximum material handling/usage rates for all limestone unloading and storage shall not exceed the following:

Unloading/Storage Handling/Usage Rate		
Material	TPH	TPY
Limestone/Aragonite	44	385,440

Hours of Operation. ADS Train 3 may be operated 8,760 hours per year.

Methods of Operation - Fuel. The ADS-3 dryer is permitted to fire only No. 2 fuel oil. The maximum firing rate of No. 2 fuel oil shall not exceed 100 gallons per hour nor 385,440 gallons per year.

Particulate Matter Emissions. PM emissions from ADS Train 3 shall not exceed 0.003 gr/dscf.

Visible Emissions. VE from ADS Train 3 shall not exceed 5 percent opacity.

No. 2 Fuel Oil Sulfur Content. The maximum No. 2 fuel oil sulfur content used in ADS Train 3 shall not exceed 0.05 percent, by weight.

Annual Tests Required. Annual VE compliance tests shall be performed for ADS Train 3.

Visible Emissions. The test method for VE shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C.

Particulate Matter Emissions. The test method for PM emissions shall be EPA Method 5 or 17, incorporated in Chapter 62-297, F.A.C.

Particulate Matter and VE Testing. Initial testing is required for ADS-3 train. Subsequent to the initial PM mass emissions test, neither the Department nor the AWQD shall require a PM mass emissions test unless the VE limit of 5 percent opacity is exceeded for a given emissions unit, or unless the FDEP or the AWQD, based on other information, has reason to

believe that the particulate matter emissions limit is being violated. When both PM and VE compliance tests are required, they shall be conducted concurrently, except where inclement weather interferes.

No. 2 Fuel Oil Sulfur Content. For the ADS Train 3, the fuel sulfur content, percent by weight, shall be analyzed using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. If the No. 2 fuel oil being delivered has a sulfur content of 0.05 percent or less, by weight, then the vendor's analysis is acceptable and no further analysis is required. However, if the No. 2 fuel oil being delivered has a sulfur content greater than 0.05 percent, by weight, the permittee shall have an as-fired sample analyzed.

TABLES

TABLE 1
ABSORBER DRYER SYSTEM (ADS) TRAIN 3 CAPACITY
AND MAXIMUM POTENTIAL EMISSIONS

	Data	Units
Drying Capacity	44	tons/hour
	385,440	tons/yr
Fuel Rate	100	gal/hr
	876,000	gal/yr
Fuel Heat Content	19,150	Btu/lb
Fuel Density	7.0	lb/gal
Heat Input	13.4	MMBtu/hr
Exhaust Flow	17,500	dscfm
	20,500	acfm
Stack Height	63.0	feet
Stack Diameter	4.2	feet
Stack Temperature	180.0	°F
Emissions		
PM/PM ₁₀	0.003	gr/dscf ^a
	0.45	lb/hr
	1.97	tons/year
SO ₂	0.05%	sulfur by weight
	0.7	lb/hr
	3.1	tons/year
NO _x	0.12	lb/MM Btu ^a
	1.6	lb/hr
	7.0	tons/year
CO	0.16	lb/MM Btu ^a
	2.1	lb/hr
	9.4	tons/year
VOC	0.2	lb/1,000 gal ^b
	0.02	lb/hr
	0.09	tons/year

^a based on manufacturer information

^b based on AP-42; Table 1.3-3

**TABLE 2
CALCULATIONS FUGITIVE EMISSIONS FOR ABSORBER DRYER SYSTEM 3**

Estimates of Limestone Used:

	Data	Units	Basis
Limestone for Absorber C	385,440.0	tons/year	44 tons/hr x 8,760 hrs/yr

Fugitive Emissions:

Fugitive emissions based on material drop equations in AP-42, 4th Edition 11.2.3:

$$EF = k \times (0.0032) \times (U/5)^{1.3} / (M/2)^{1.4}$$

where: EF is the emission factor in lb/ton

k is particle size factor; 0.74 for PM and 0.35 for PM10

U is average wind speed for Jacksonville International Airport: 8 miles/hour

M is percent moisture: 3 percent

$$EF_{PM} = 0.74 \times (0.0032) \times (8/5)^{1.3} / (15/2)^{1.4}$$

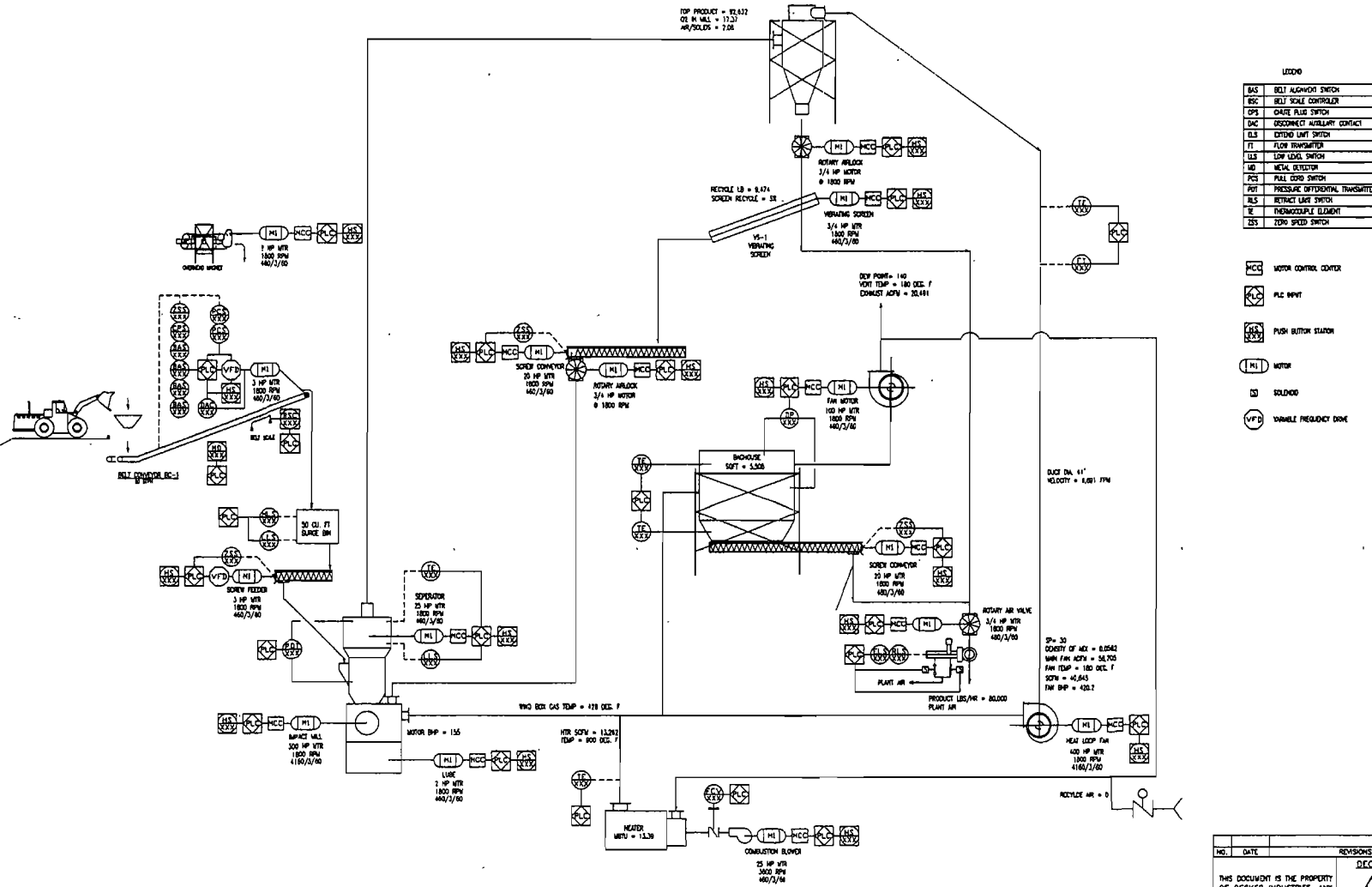
$$EF_{PM} = 0.002472919 \text{ lb/ton}$$

$$EF_{PM10} = 0.35 \times (0.0032) \times (7.8/5)^{1.3} / (6/2)^{1.4}$$

$$EF_{PM10} = 0.001169624 \text{ lb/ton}$$

Number of Drops	2	Truck unloading and loading hopper
PM Emissions	1906.32 lb/year	
	0.95 tons/year	
PM10 Emissions	901.64 lb/yr	
	0.45 tons/year	

FIGURE 1



- LEGEND
- | | |
|-----|----------------------------------|
| SAC | SELF ALIGNING SWITCH |
| SEC | SELF SCALE CONTROLLER |
| DPS | CHARGE PLUG SWITCH |
| DAC | DISCONNECT AUXILIARY CONTACT |
| ELS | EXTEND UNIT SWITCH |
| FT | FLOW TRANSDUCER |
| LLE | LOW LEVEL SWITCH |
| MD | METAL DETECTOR |
| PCS | PULL CORD SWITCH |
| POT | PRESSURE DIFFERENTIAL TRANSDUCER |
| RLS | RETRACT LIMIT SWITCH |
| T | THERMOCOUPLE ELEMENT |
| ZSS | ZERO SPEED SWITCH |

- | | |
|----------|--------------------------|
| MCC | MOTOR CONTROL CENTER |
| PLC INVT | PLC INVERTER |
| PLS | PUSH BUTTON STATION |
| M | MOTOR |
| IS | SOLIDID |
| VFD | VARIABLE FREQUENCY DRIVE |

NO.		DATE		REVISIONS		BY																																									
DECKER INDUSTRIES																																															
THIS DOCUMENT IS THE PROPERTY OF DECKER INDUSTRIES. ANY REPRODUCTION WITHOUT PERMISSION IS STRICTLY PROHIBITED.																																															
485 CHARLOTTE HWY. LAKE WALE, SC 29740 TEL: 803-831-1001 FAX: 803-831-7363																																															
<table border="1"> <tr> <td colspan="8" style="text-align: center;">TOLERANCES</td> </tr> <tr> <td colspan="8">UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>DECIMAL FINISH</td> <td>± 0.03</td> <td>ANGLE</td> <td>± 1/2°</td> <td>DRILL</td> <td></td> <td>TOOTH</td> <td></td> </tr> <tr> <td>RA</td> <td>3.15</td> <td>SURFACE FINISH</td> <td>125</td> <td>DRILL DIA</td> <td>± 0.015</td> <td>TOOTH DIA</td> <td></td> </tr> <tr> <td>THREADS</td> <td>2/1/18</td> <td colspan="6"></td> </tr> </table>								TOLERANCES								UNLESS OTHERWISE SPECIFIED								DECIMAL FINISH	± 0.03	ANGLE	± 1/2°	DRILL		TOOTH		RA	3.15	SURFACE FINISH	125	DRILL DIA	± 0.015	TOOTH DIA		THREADS	2/1/18						
TOLERANCES																																															
UNLESS OTHERWISE SPECIFIED																																															
DECIMAL FINISH	± 0.03	ANGLE	± 1/2°	DRILL		TOOTH																																									
RA	3.15	SURFACE FINISH	125	DRILL DIA	± 0.015	TOOTH DIA																																									
THREADS	2/1/18																																														

FIGURE 1
 0637514/4.4/Figure 1

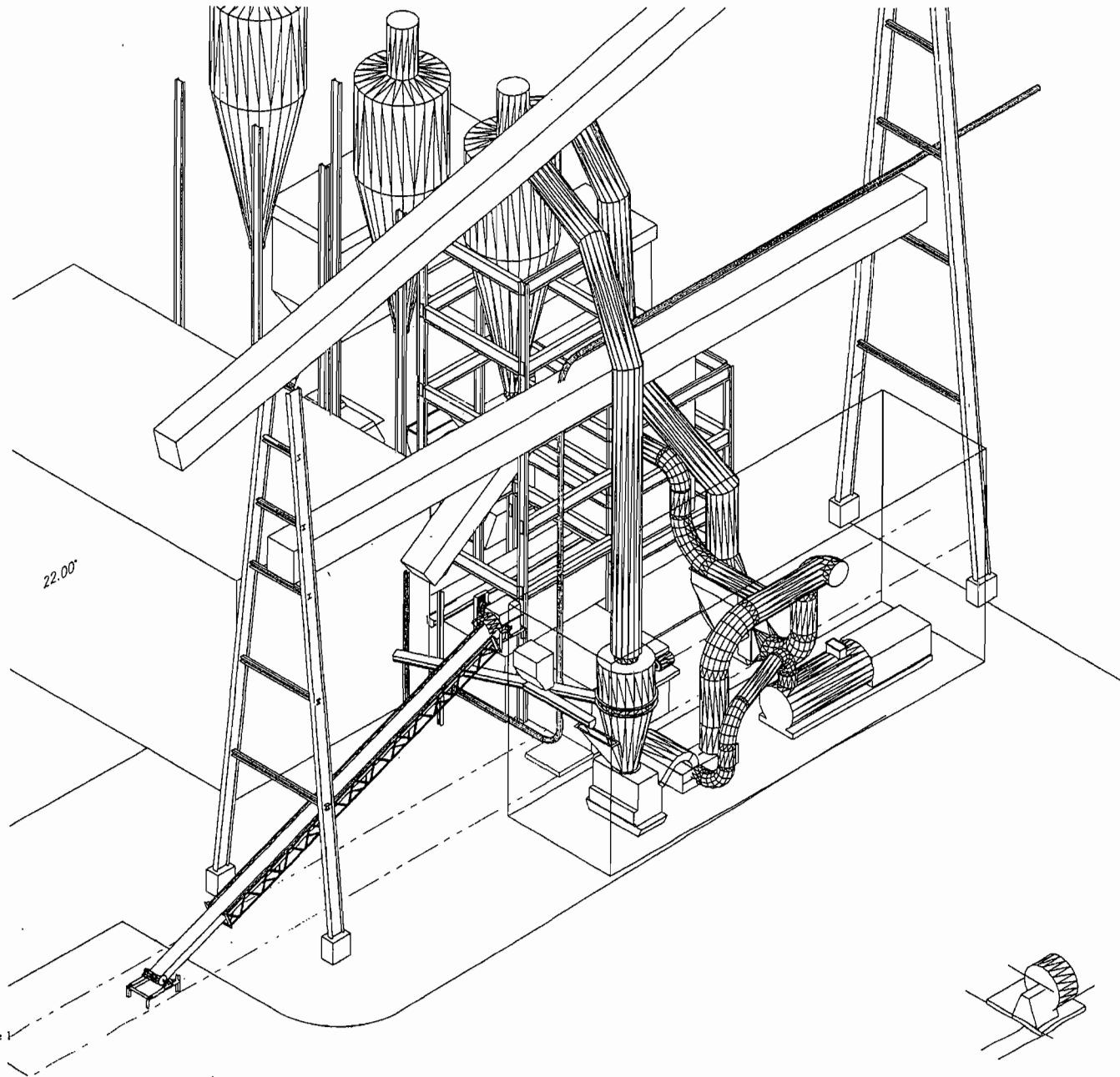


FIGURE 1
0637514/4.4/Figure 1

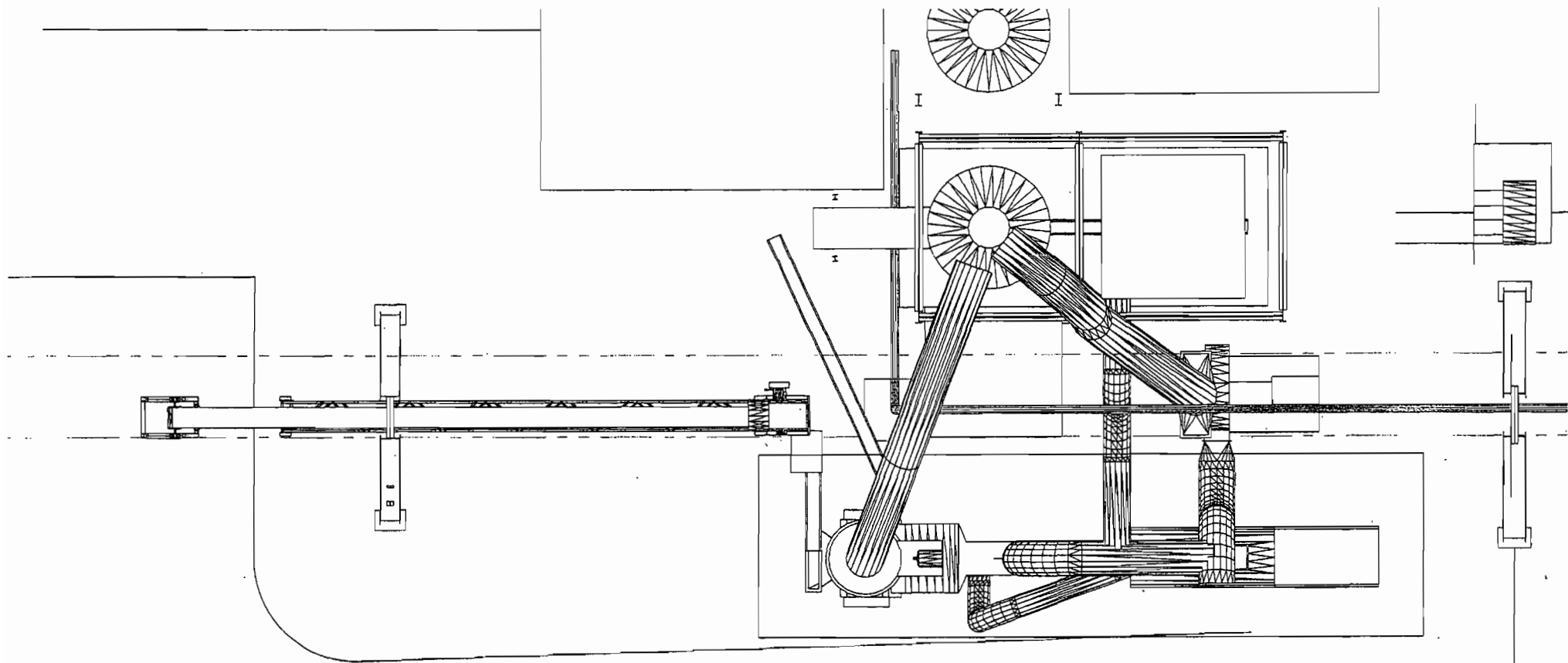


FIGURE 1
0637514/4.4/Figure 1

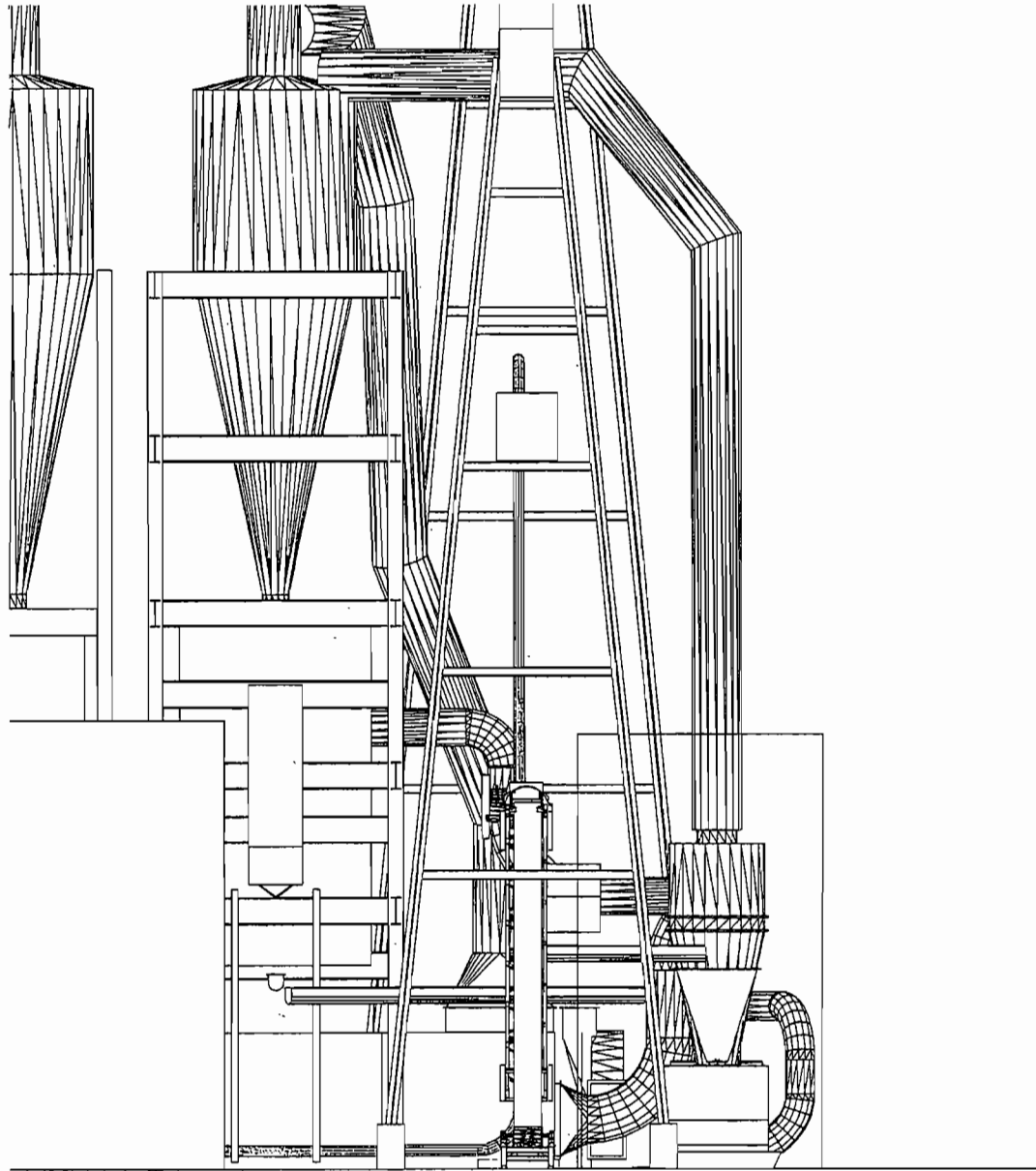


FIGURE 1
0637514/4.4/Figure 1

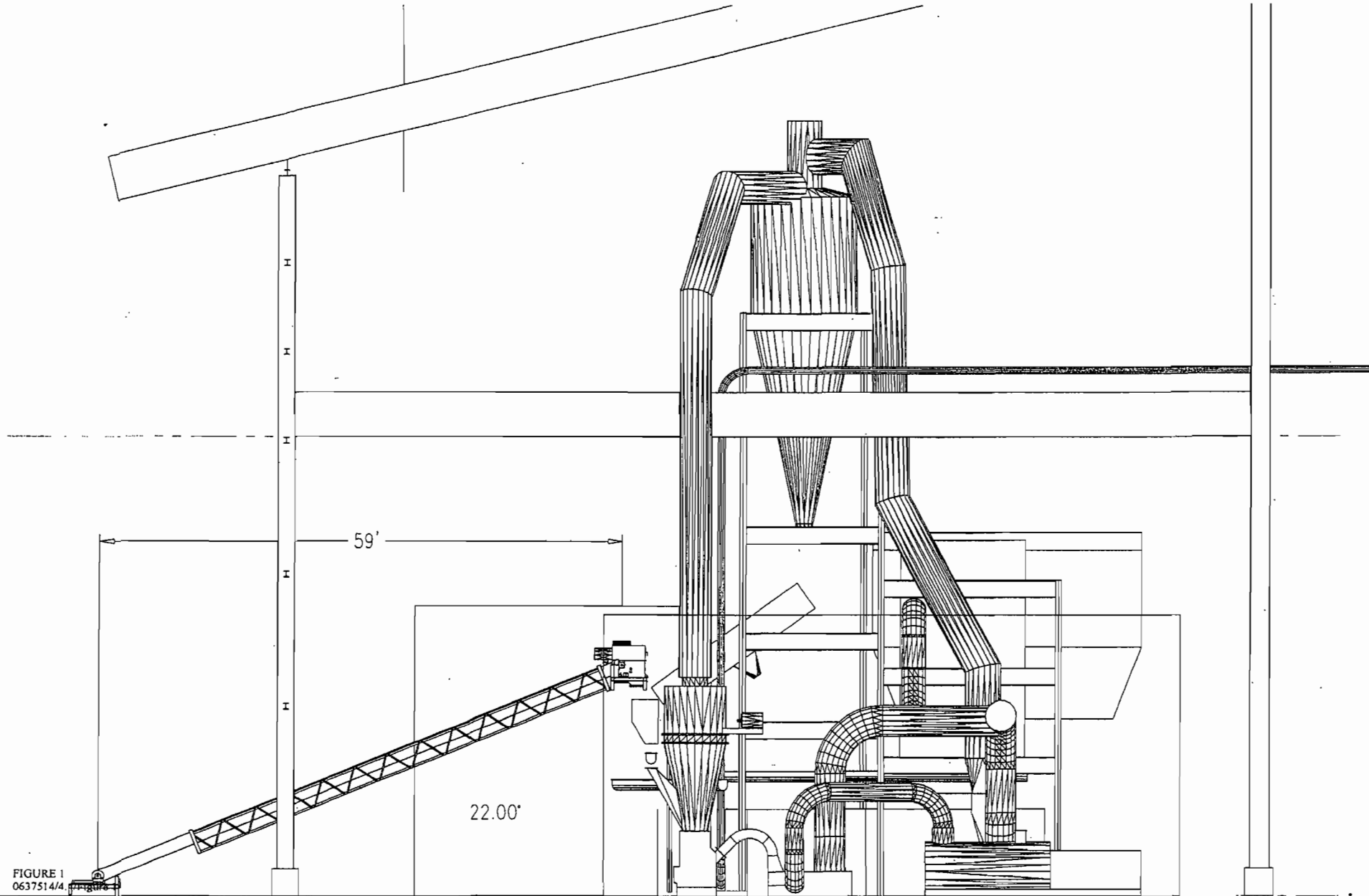
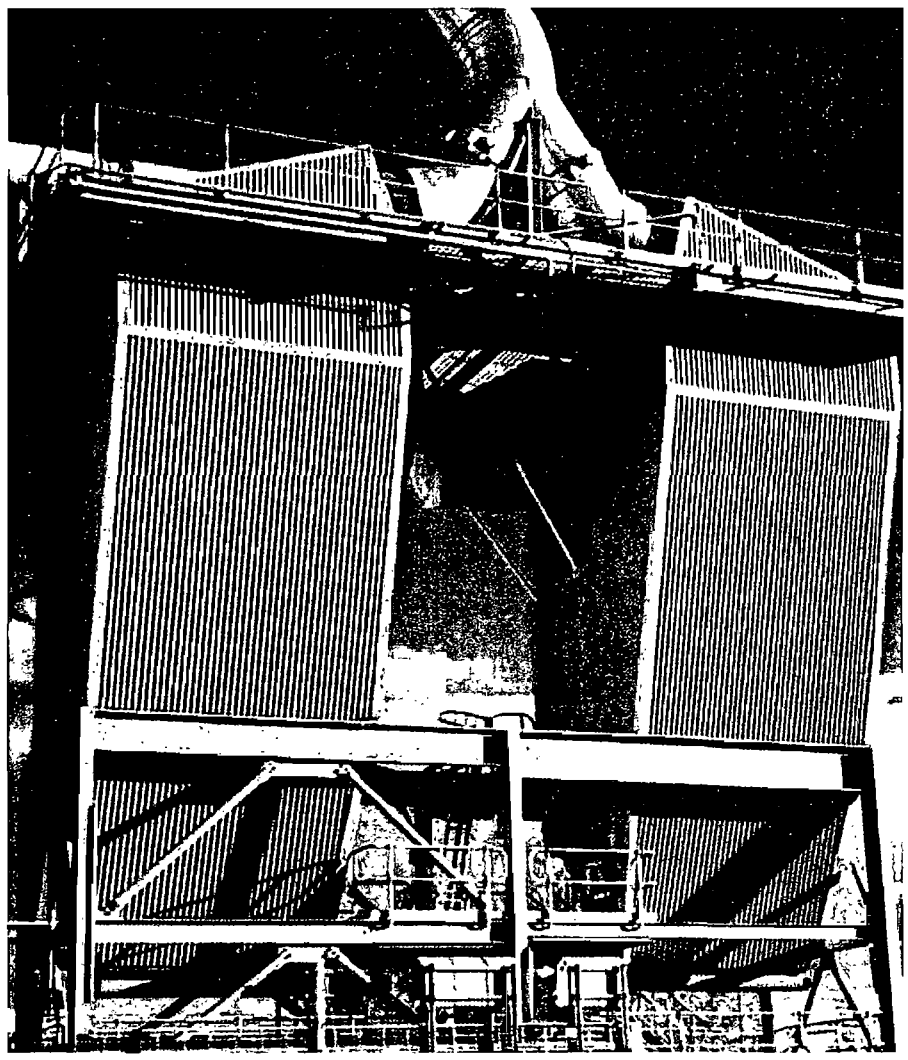


FIGURE 1
0637514/4

ATTACHMENT A

MIKRO-PULSAIRE®
DUST COLLECTORS



MIKROPUL

DRY FILTRATION ◀
WET SCRUBBERS ◀
CYCLONES ◀
WET ELECTROSTATIC
PRECIPITATORS ◀

MIKRO-PULSAIRE® DUST COLLECTOR

MikroPul invented the first pulse-jet dust collector in 1956 and has since installed more than 160,000 systems. Our extensive experience has created a comprehensive application database, allowing us to recommend the best, proven solution for your dust control needs.

How The Mikro-Pulsaire Works

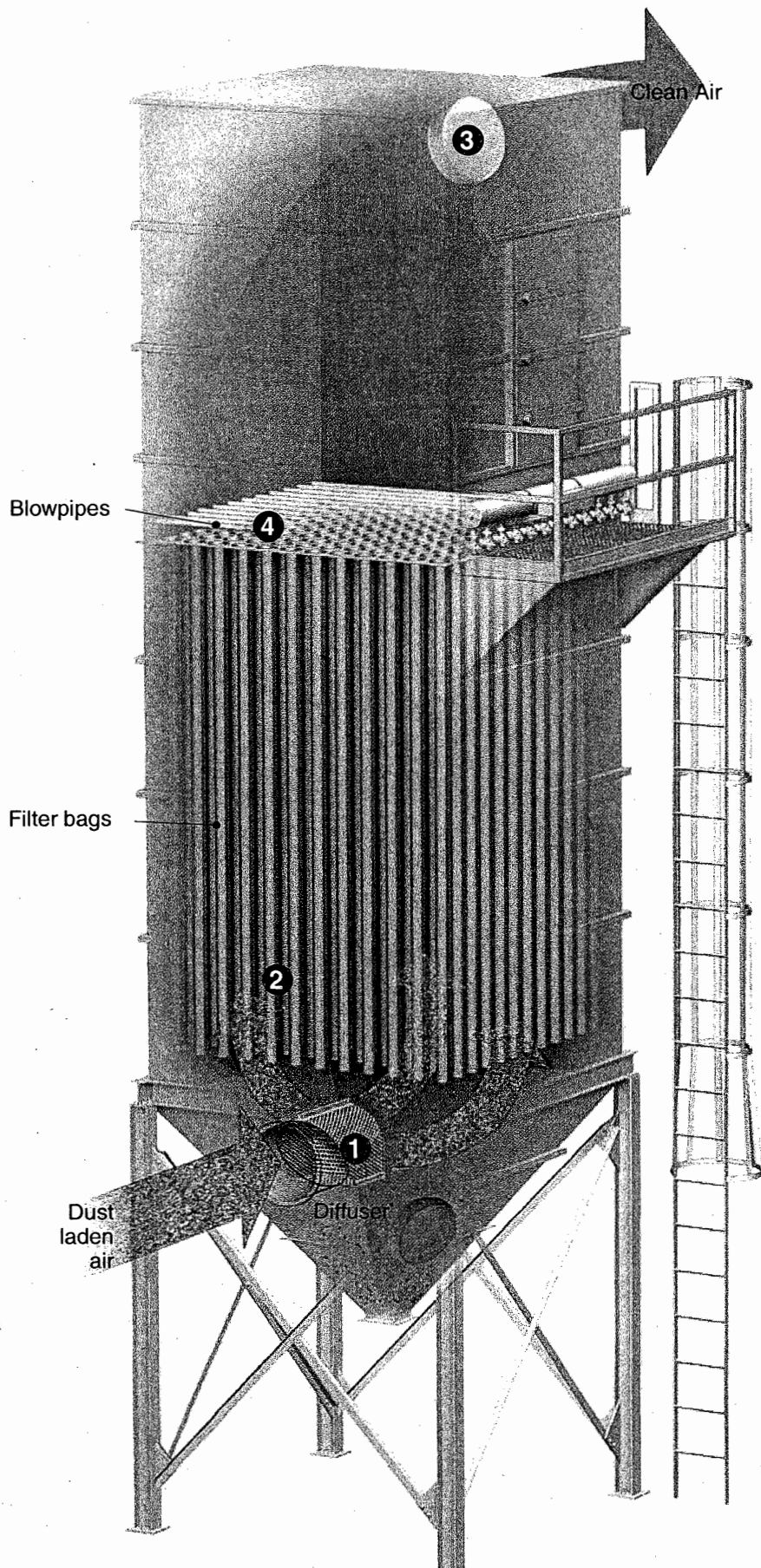
The dust-tight Pulsaire has three sections: a clean-air plenum at the top, a filtration housing containing a number of cylindrical filter bags in the middle, and a dust inlet/discharge hopper at the bottom. The filter bags are supported from a tube sheet which separates the filtration housing from the plenum.

Dust laden air enters the collector through a diffuser (1) which absorbs the impact of the high velocity dust particles, distributes the air, and reduces its velocity. The slower air speed causes the heavier particles to drop into the hopper. The air stream then flows through the filter bags (2), depositing the fine dust on the outside of the bag. The cleaned air continues upward into the plenum and exhausts into the atmosphere (3).

Filter bags are cleaned by a momentary, high pressure back-pulse of compressed air from the clean side of the bag. The pulses are delivered by blowpipes (4), arranged over each row of bags, incorporating orifice nozzles directed into the center of each bag. The bursts of air are optimized by venturis located at the top of the bags to effectively dislodge dust along the length of the bag.

Cleaning cycles are timed by a Model 72 solid state 10-position timer. A differential pressure (between the clean and dirty sides) gauge helps determine cleaning frequency.

Shown with optional walk-in plenum, ladder, platform, and support legs



ADVANTAFLOW INLET TECHNOLOGY

Eight years of field and laboratory research revealed that a major problem with dust collector performance is uneven air flow distribution to the filter elements. This uneven distribution is the result of ineffective inlet and diffuser device designs.

Several diffuser designs were investigated: Impingement Plate, Perforated Disc, and Perforated Mail-Box. In all cases the air stream formed two vortex motions. The primary vortex occurs in the filter housing causing very high localized dust laden velocities. A secondary vortex motion is created in the lower part of the hopper, causing high dust re-entrainment and uneven dust discharge.

This condition is the main reason for:

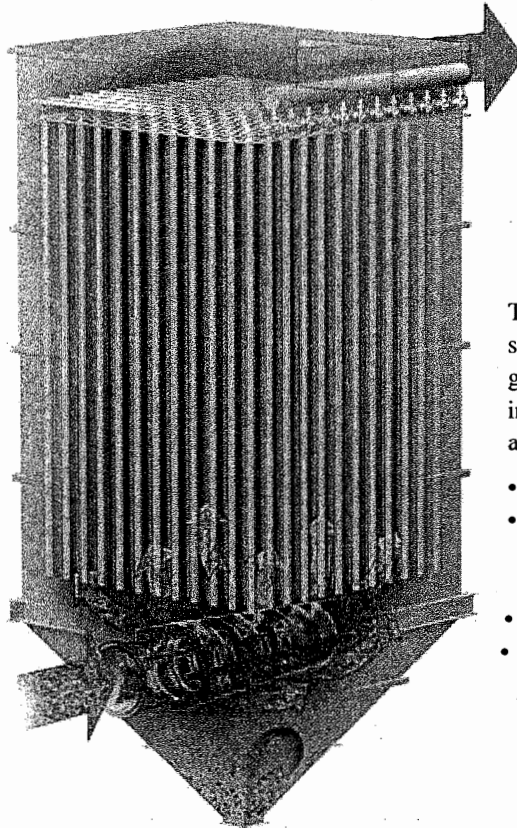
- Abrasion
- Short bag life
- Dust seepage
- High pressure drops
- Reduced air flow capacity
- High cleaning power consumption

Two Solutions

MikroPul R&D arrived at two patented solutions that effectively distribute air flow evenly to the filter bags: The Cascadair hopper inlet and Expandiffuse side inlet, both described at right.

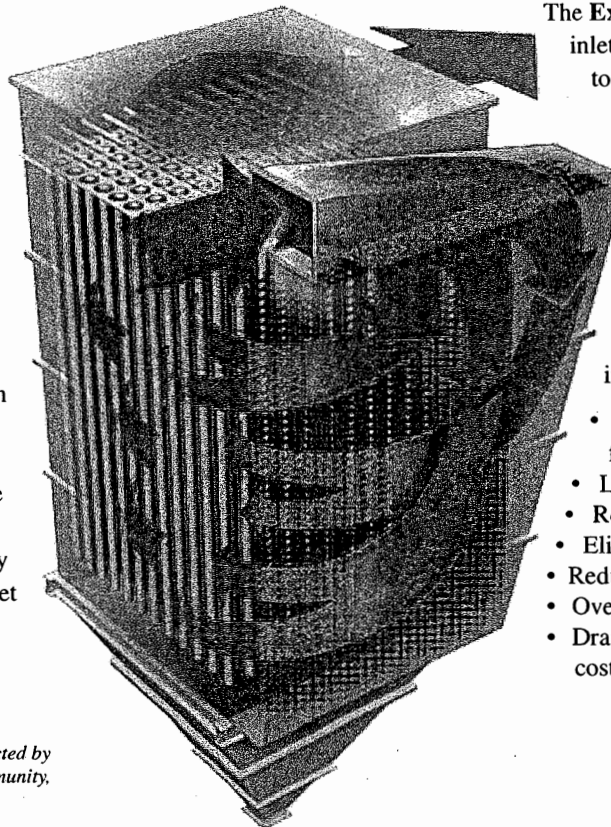
Cascadair and Expandiffuse can be retrofitted to improve the performance of any style or make of pulse-jet collector. The Cascadair can also be used to improve the performance of any dust collector with a hopper inlet including shaker or reverse-air type units.

Cascadair and Expandiffuse are protected by Australian, Canadian, European Community, Japanese, and U.S. patents.



The **Cascadair™** diffuser uses a succession of orifice plates to gradually divert portions of the incoming air in stages. The results achieved:

- Increased bag life
- Lower pressure drop or significantly increased air flow capacity
- Minimum dust re-entrainment
- Overall better filter performance



The **Expandiffuse™** is a two stage inlet with diffusers at right angles to each other. Air enters the filter housing from the side of the unit at velocities reduced over 90%. This design improves pulse-jet performance by as much as 40% (or more when combined with MikroPul's Long Bag technology). Benefits include:

- Higher A/C ratio; i.e. greater flow capacity
- Longer bag life
- Reduced pressure drop
- Elimination of dust reentrainment
- Reduction of pulse air consumption
- Overall better filter performance
- Dramatically reduced maintenance costs

MODELS AND APPLICATIONS

Bin Vents

Bin Vent Collectors are used on top of silos and bins or where the bin loading system requires aspiration. MikroPul carries the most common bin vent sizes in stock for quick delivery.

Insertables

Insertable collectors are self-contained units which are integrated into an existing enclosure, allowing dust to be retained at the point at which it is generated.

Common applications: mechanical and pneumatic conveyors, conveyor feed silos, air slides, process machinery, and bins in which powders are fluidized.

Modular Units

Fully assembled Mikro-Pulsaires are ideal for applications requiring filter area generally between 76 and 4,500 ft² of cloth.

Common applications: size reduction machinery, spray dryers, separators, calciners, mixers, packaging machines, conveyors, chemical manufacturers, foundries, grinders, and many other industrial applications.

Large Sectional Units

For large applications, generally above 4,500 ft² cloth area, collectors are provided in prewired sections sized to suit shipping limitations. Subassemblies can be prepared for bolting and/or welding on site.

Common applications: kilns, boilers, dryers, mixers, coke pushing systems, sinter strand systems, furnaces, ladle casters, foundry sources, smelters, and many chemical applications.

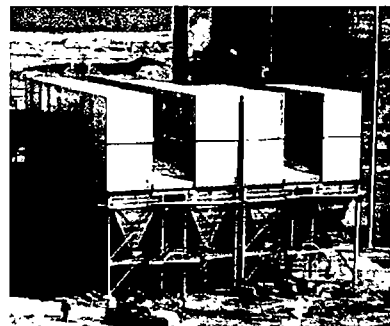
Bag Access Styles

Mikro-Pulsaires can be supplied with bag access from either the dirty or clean side of the filter. Choices include:

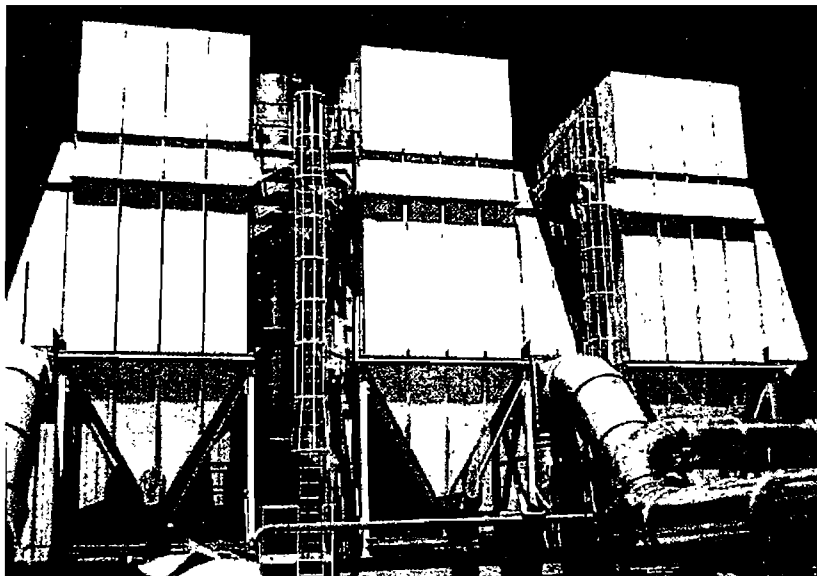
- Bottom removal—ideal for small



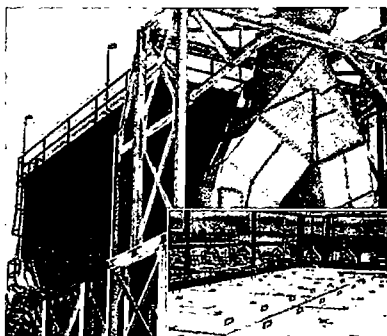
Bin vent



Preassembled

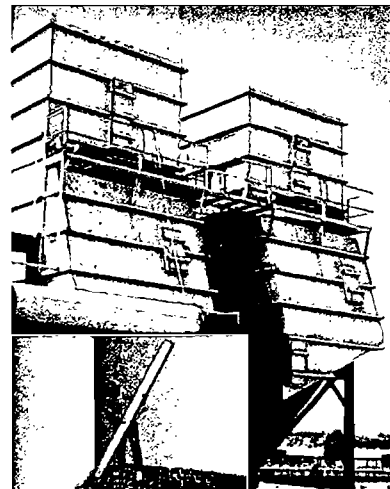


Large sectional



Top removal

- baghouses or where headroom restraints prevent top removal
- Top removal—access doors on top of unit permit bag maintenance from the clean side, allowing quicker changeout. Leaking bags can be detected rapidly and easily.
- Top removal with walk-in plenum—Also protects maintenance personnel, media, and



Top removal with walk-in plenum

valuable, recoverable product from the weather. Work platform and access door provide entry into the clean air plenum.

Cylindrical Units

MikroPul cylindrical collectors are for high vacuum or high pressure applications. Units can be supplied for bag replacement from either the clean or dirty side of the tubesheet. Special designs are available including:

- Housing diameters up to 30 ft.
- Abrasion resistant design.
- Quick changeout design where all bags are removed and installed as a unit.
- Heated filter housing by means of heating coils or vessel jacket.
- Explosion relief housing design.
- Housings built to pressure vessel code specifications.

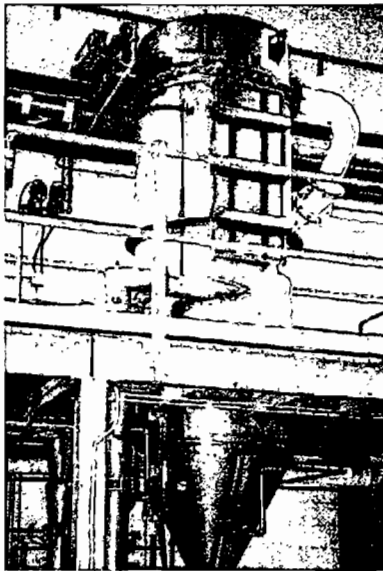
Common applications: spray drying, separating, coal grinding, mixing food manufacturing, car loading, and product receiving from process applications.

Tangential Inlet Model. The MikroPulsaire tangential inlet collector can handle dust loads over 450 grains/ft³ and air-to-cloth ratios of up to 20:1. The inlet acts as a cyclone, causing the air to spin and consequently throw the heavy particulate to the walls and then into the hopper. The fine particles are collected on the filter bags. This design can handle between 1,000 and 60,000+ CFM. *Common applications:* sander dust, fine lint, cellulose, and grain.

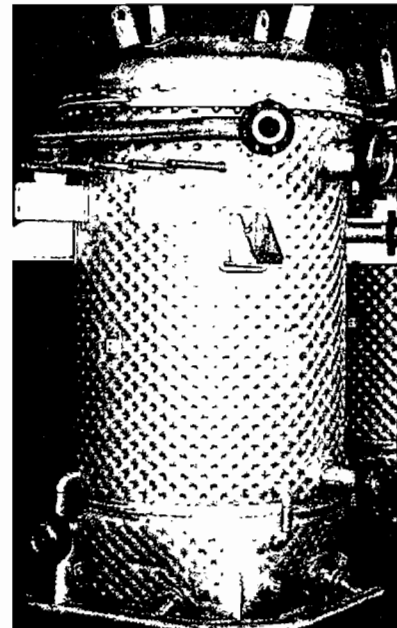
Clean In Place Units

MikroPul offers a patented design for thoroughly cleaning the filter elements without removing them. Features include:

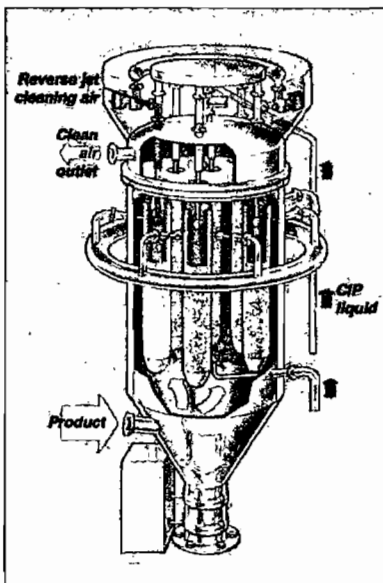
- Total containment for operator and product protection
- Crack and crevice free design
- Sintered stainless steel metal fiber or fabric filter elements
- Full CIP washing and drying sequence control available



Typical custom built process filter

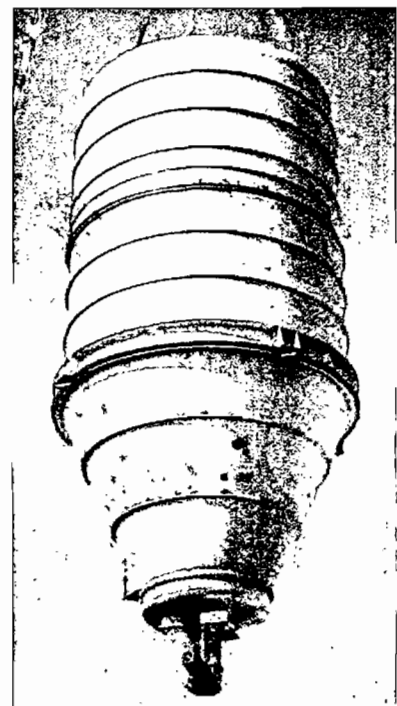


Dust collector with thermplate heating jacket and ring duct



Patented CIP filter design

- Designs to BS 5500, ASME VIII and IX, and VDI 2263
- Pharmaceutical units suitable for FDA validation
- Cleaning by water or organic solvents
- Custom designed to suit each individual application



Steam jet mill filter for titanium dioxide

FILTER MEDIA AND RETAINER ASSEMBLIES

When MikroPul invented the pulse-jet collector, we had to develop the fabric filter bag to make it succeed, and we've been innovating ever since. Filter bag choices include:

- Fabric material and type – an assortment of bag constructions and media fibers are available to suit practically any need.
- Fabric finishes – MikroPul offers a wide variety of finishes and treatments to enhance filtration performance or resist chemical attack.
- Bag length – bags are available in lengths from 2.5 to 26 feet.

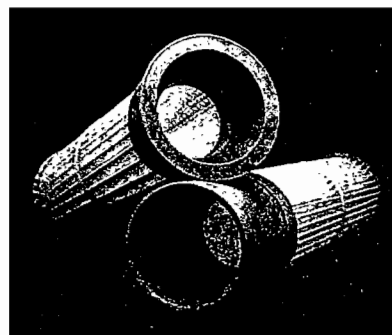
Long-Bag™ Technology

The practical limit for bag length was 12 feet until MikroPul developed Long Bag technology. Difficulties such as reintraintment, turbulence, unreliable gas distribution, and inability to clean filter continuously, among others, were successfully addressed. Benefits can include:

- Lower pressure drops
- Less pulse cleaning required to maintain a given pressure drop
- Higher filter rates
- Savings in capital, real estate, and maintenance costs

Pleated Filters

MikroPul's Mikro-Pleat™ pleated elements combine the advantages of traditional pulse-jet filter bags and cartridge filters. In many cases, they provide two or more times the cloth area of a conventional filter bag. Replacing existing bags with Mikro-

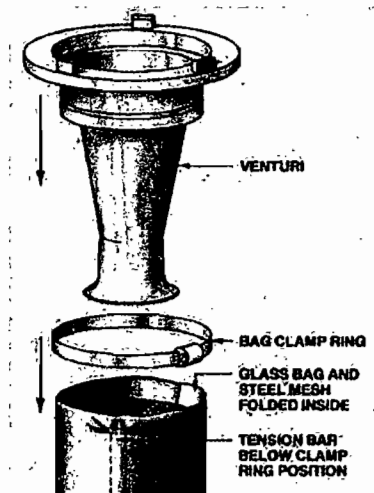


Pleat elements can significantly increase baghouse performance without altering the size of the baghouse.

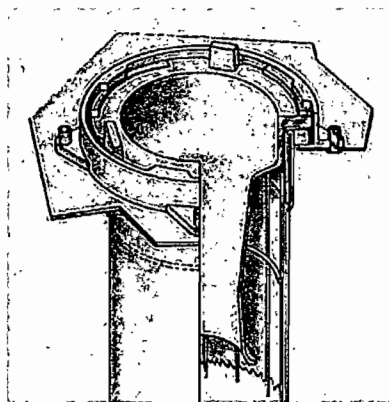
Filter Bag and Retainer Design

MikroPul offers more filter-to-tubesheet connections than anyone. Choices include:

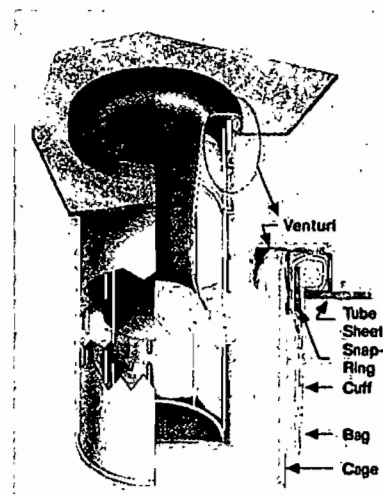
Standard Twist Lock—utilizes separate venturi, retainer assembly, gasket and fold-over bag. A clamp around the outside of the bag, and gasket between the venturi and tubesheet provide a leak free seal.



European (clampless)—top removal three-part assembly is very simple to install. The filter bag is put in the tubesheet, and the retainer is slipped inside. The venturi is twist-locked into a die cast collar, which is riveted to the tubesheet.



Snap Ring—top removal design utilizes two pieces: the snap ring bag and the one piece venturi/retainer assembly. Installation is done by snapping the bag firmly into the tube-sheet and then placing the venturi/retainer assembly into the bag.



Pop-Top®—These innovative filter bag and cage assemblies save time and money. Changeout is easier (see sequence below) and quicker, yet in most cases they cost no more than standard designs.



Pop-Top bag and cage assemblies are changed out easily and quickly

PULSE TIMERS

Standard Timer

This all solid state sequential timer is supplied as standard equipment for all MikroPul pulse-jet collectors. It is capable of switching 10 independent outputs, allowing it to be used as a 10 position timer. It can also service up to 50 valves (five off each output), as it is supplied for handling more than one dust collector.

Pulse-By-Demand Timer System

This state-of-the-art technology precisely controls filter bag pressure drop (ΔP) in your pulse-jet dust collector. Unlike other "clean-on-demand" timers, which wait until bag ΔP is high to begin pulse cleaning and then overclean to bring the ΔP to a lower level, it senses even small changes in ΔP and responds by providing the precise amount of cleaning needed to control the pressure drop to the level you want.

The result is reduced operating costs and a constant gas flow rate and fan power consumption.

Benefits

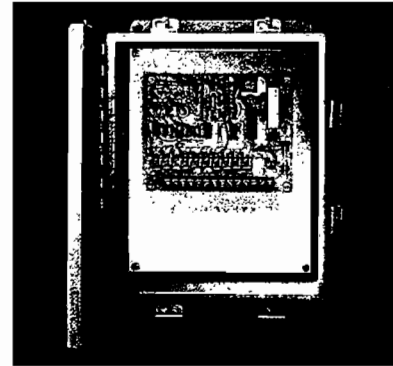
- No wide swings in ΔP and air flow
- Reduced compressed air use
- Longer bag life
- Reduced fan power consumption

PulsePro™

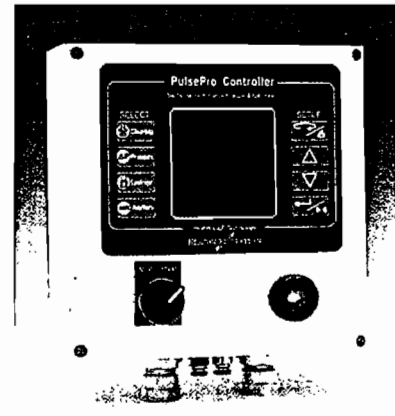
PulsePro Controls set a new standard for dust collector control by seamlessly integrating pulse-jet timing, pressure gauging, leak detection, and other measurements into a single easy-to-use device.

Integration of control and sensing:

- Lowers installation and operating costs
- Reduces emissions
- Enables automatic diagnostics such as locating failed solenoids, diaphragms, and filter leaks.



Model 72 timer



PulsePro control, monitoring, and diagnostic system

OPTIONS

Every collector is customized for the application. Some of the most common options include:

- Materials of construction to suit your requirements
- Advantaflo inlet technology
- Rotary airlocks
- Explosion proof electricals
- External catwalk
- High temperature design
- Explosion doors meeting NFPA standards
- Inspection windows
- Standlegs and bracing
- Ladder and cage
- Bag grid and/or man grid
- Weather hood over access door
- Pressure gauge on header

- Special interior and exterior coatings to your specification
- Pulse-by-demand timers
- PulseTRAC diagnostic system
- Mikro-Charge™ leak detector
- Opti-Coat media conditioning agent
- Gas tight construction
- High pressure construction
- Construction to meet code requirements
- Pulse isolation valves



Rotary airlock

PARTS AND SERVICE

MikroPul backs up our products with reliable and responsive customer support. Call us any time you need help.

Parts

We carry a full line of replacement parts, and keep most-used items on the shelf for immediate shipment. Mikro-Pulsaire parts and accessories available include:

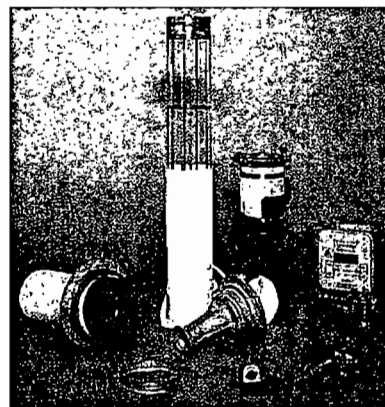
- Filter bags and cages
- Clamps
- Blow pipes
- Diaphragm valves and repair kits
- Solenoid valves and repair kits
- Tubesheets
- Differential pressure gauges
- Timers
- Fans

- Rotary airlocks and replacement vanes
- Access doors
- Door seals
- Explosion vents
- Vent valves
- Acoustic horns
- Hopper vibrators
- Vacuum systems
- Screw conveyors

Services

MikroPul provides an array of services to help you select, install, operate, and maximize your equipment investment. Services include:

- Clean air preparation program
- Inspections
- Collector refurbishing



- Collector rebuilding
- Converting old collectors to new technology
- Preventive maintenance programs
- Bag testing
- Maintenance seminars
- Erection services

MikroPul Global Network

Americas

MikroPul Headquarters
4500 Chesapeake Dr.
Charlotte, NC 28216, USA
Tel: 704-998-2600
Fax: 704-998-2601
info@mikropul.com

MikroPul Pittsburgh
2591 Wexford-Bayne Road, Suite 202
Sewickley, PA 15143, USA
Tel: 724-934-3910
Fax: 724-934-3934
pittsburgh@mikropul.com

MikroPul Chatham
17 Watchung Avenue
Chatham, NJ 07928, USA
Tel: 973-635-1115
Fax: 973-635-0678
info@mikropul.com

MikroPul Canada, Inc.
245 Matheson Blvd. E., Unit # 10
Mississauga, Ontario L4Z 3C9
CANADA
Tel: 905-712-0722
Fax: 905-712-0027
info@ca.mikropul.com

MikroPul, S de RL de CV
Av. Lomas Verdes No. 480-302B
Col. Lomas Verdes
CP 53120 Naucalpan
Edo. de Mexico
Tel: 52-55-5343-8224
Fax: 52-55-5344-5081
info@mx.mikropul.com

Europe

MikroPul GmbH & Co. KG
Welsersstrasse 9-11
D-51149 Cologne
GERMANY
Tel: +49-2203-9391-0
Fax: +49-2203-9391-293
info@mikropul.de

MikroPul France
Parc Club du Moulin à Vent
33, Avenue Dr. Georges Lévy
69693 Vénissieux Cédex
FRANCE
Tel: +33 478 78 9005
Fax: +33 478 01 9458
mikropul@easynet.fr

MikroPul Limited
Chadwick House
Birchwood Park
Warrington, Cheshire WA3 6AE
UNITED KINGDOM
Tel: +44-01925-849220
Fax: +44-01925-849221
info@uk.mikropul.com

Asia/Pacific

MikroPul Australia Pty Ltd
1 Toohy Road
Wetherill Park, NSW 2164
AUSTRALIA
Tel: 61-2-9756-2933
Fax: 61-2-9756-3120
mikropul.syd@tpg.com.au

Africa

MikroPul (Pty.) Limited
Evapark Block B
Cnr DF Malan Dr. & Judges Ave.,
Cresta, Johannesburg
SOUTH AFRICA
Tel: +27-(11)-478-0456
Fax: +27-(11)-478-0371
sales@mikropul.co.za

www.mikropul.com

MIKROPUL

A member of Beacon Industrial Group
Attachment A

BIM502 1/01 5000

Modular Mikro-Pulsaire Bottom Access Style

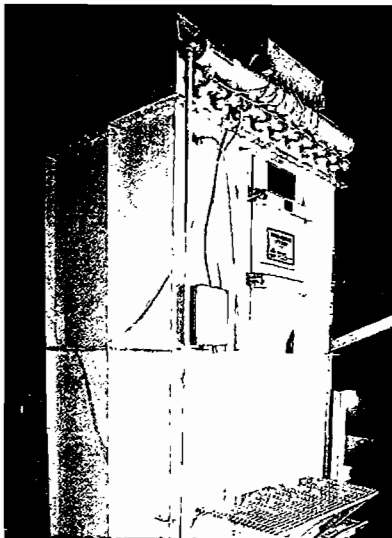
Low cost filter for applications requiring filter area between 151 and 8,246 ft² cloth area, using 8, 10, 12, or 14 ft. long bags.

Features

- Most sizes factory assembled for rapid field installation. Header pipe assembly (consisting of header pipe, right angle valves, solenoid valve, and solenoid valve enclosure) is shipped mounted, wired and completely assembled on most sizes.
- Handles high dust loadings: 100+ grains/ft³.
- Sections can be bolted or welded in the field for largest units.
- Compressed air headers are pre-assembled and prewired.
- Welded 12 gauge carbon steel construction.
- Operating pressure to 20" w.g. std. (higher levels available).
- Operating temperatures to 200°F.

Delivered with:

- Aluminum venturis
- Stainless steel bag clamps
- 1/8" 10 wire carbon steel smooth retainers
- Model 72 solid state 10-position timer
- One or two hinged housing access doors, depending on size
- One hinged access door in hopper
- Primed carbon steel surfaces
- NEMA 4 solenoid valve and timer enclosures



Common Applications

Size reduction machinery, spray dryers, separators, calciners, mixers, packaging machines, conveyors, chemical manufacturers, foundries, grinders, and many other industrial applications.

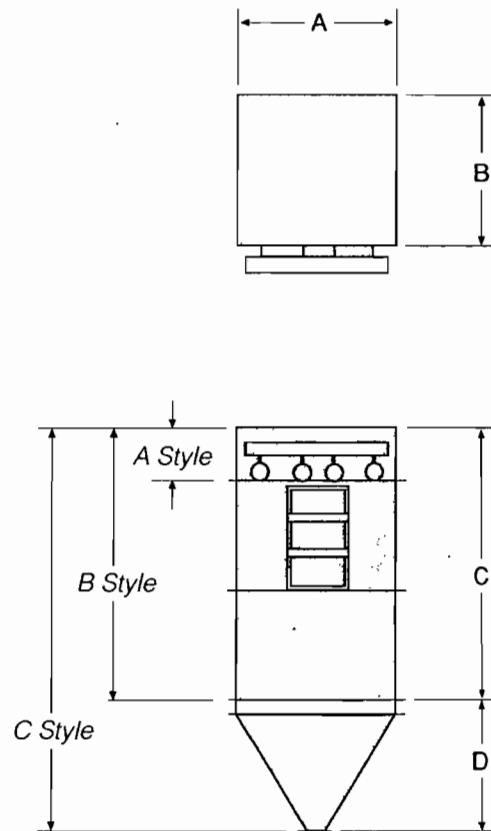
Options

- 6 in. diameter bags
- Patented Cascadair™ or Expandiffuse™ inlet designs to improve air distribution and filter performance
- Explosion proof electricals
- 500°F temperature capability
- Explosion doors
- External catwalk
- Inspection window

- Standlegs and bracing
- Ladder and cage
- 70° hopper
- Bag grid and/or man grid
- Weather hood over access door
- Pressure gauge on header
- Special interior or exterior coatings to your specification
- High quality Mikro bags in wide variety of materials and finishes
- Pulse-by-demand or diagnostic timer
- Emissions detectors
- Epoxy coat, stainless steel 10 or 20 wire retainers
- All surfaces that may come in contact with dust or product can be fabricated of stainless steel or other materials
- All surfaces that may come in contact with gas can be fabricated of stainless steel or other materials

Modular Mikro-Pulsaire Bottom Access Style

Model	# Bags	Filter Area ft ²	Weight lbs.	A in.	B in.	C in.	D in.
16S 8	16	51	1,175	30	30	105	29
16S 10		188	1,270	30	30	129	29
25S 8	25	236	1,395	36	36	105	34
25S 10		295	1,660	36	36	129	34
36S 8	36	339	1,940	48	48	105	45
36S 10		424	2,110	48	48	129	45
49S 8	49	462	2,555	54	54	111	50
49S 10		577	2,605	54	54	135	50
64S 8	64	603	2,800	60	60	111	55
64S 10		754	3,120	60	60	135	55
81S 8	81	763	3,450	66	66	111	60
81S 10		954	3,820	66	66	135	60
100S 8	100	942	3,750	72	72	111	65
100S 10		1,178	4,145	72	72	135	65
121S 8	121	1,140	4,480	78	78	111	70
121S 10		1,425	4,910	78	78	135	70
144S 8	144	1,356	5,215	84	84	117	75
144S 10		1,696	5,720	84	84	141	75
156S 8	156	1,469	7,150	92	85	132	83
156S 10		1,858	7,600	92	85	156	83
168S 8	168	1,583	7,250	99	85	132	89
168S 10		1,979	7,750	99	85	156	89
180S 8	180	1,695	7,800	106	85	132	94
180S 10		2,120	8,350	106	85	156	94
196S 8	196	1,846	7,900	99	99	132	89
196S 10		2,309	8,450	99	99	156	89
221S 8	221	2,082	8,950	120	92	132	107
221S 10		2,603	9,550	120	92	156	107
238S 8	238	2,242	9,550	120	99	138	107
238S 10		2,803	10,150	120	99	162	107
289S 8	289	2,722	10,850	120	120	138	107
289S 10		3,404	11,500	120	120	162	107
320S 8	320	3,014	12,000	141	113	138	125
320S 10		3,769	12,700	141	113	162	125
340S 8	340	3,203	12,775	141	120	138	125
340S 10		4,005	13,525	141	120	162	125
360S 8	360	3,393	13,550	141	127	144	125
360S 10		4,241	14,350	141	127	162	125
380S 8	380	3,579	14,545	141	134	144	125
380S 10		4,476	15,250	141	134	162	125
400S 8	400	3,768	15,740	141	141	144	125
400S 10		4,712	15,945	141	141	162	125
420S 8	420	3,958	17,157	148	141	144	131
420S 10		4,948	17,600	148	141	162	131
440S 8	440	4,146	18,701	155	141	144	137
440S 10		5,183	18,944	155	141	162	137
460S 8	460	4,335	20,384	162	141	144	143
460S 10		5,418	20,650	162	141	162	143
480S 8	480	4,523	22,422	169	141	144	149
480S 10		5,654	22,715	169	141	162	149
500S 8	500	4,712	24,561	176	141	144	155
500S 10		5,890	24,760	176	141	162	155



Dimensions are nominal and are for 8 ft. and 10 ft. 4½" dia. bags. 12 ft. and 14 ft. bags are also available. Other model sizes are available using 6" dia. bags.

NORTH AMERICAN LOCATIONS Visit our web site @ www.mikropul.com for other locations worldwide.



A member of Beacon Industrial Group

MikroPul Headquarters
4500 Chesapeake Dr.
Charlotte, NC 28216
Tel: 704-998-2600
Fax: 704-998-2601
Customer Service:
800-892-7278
info@mikropul.com

MikroPul Pittsburgh
2591 Wexford-Bayne Road, Suite 202
Sewickley, PA 15143
Tel: 724-934-3910
Fax: 724-934-3934
pittsburgh@mikropul.com

MikroPul Canada, Inc.
245 Matheson Blvd. E., Unit # 10
Mississauga, Ontario L4Z 3C9
Canada
Tel: 905-712-0722
Fax: 905-712-0027
info@ca.mikropul.com

MikroPul, S de RL de CV
Av. Lomas Verdes No. 480-302B
Col. Lomas Verdes
CP 53120 Naucalpan
Edo. de Mexico
Tel: 52-55-5343-8224
Fax: 52-55-5344-5081
info@mx.mikropul.com

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603



TRANSMITTAL LETTER

To: Mr. Michael Halpin, P.E.
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida

Date: February 7, 2006

Project No.: 063-7514

RECEIVED

FEB 08 2006

Sent by: **alane**

- Mail
- Air Freight
- Hand Carried

- UPS
- Federal Express

BUREAU OF AIR REGULATION

Per: **K. Kosky**

Quantity	Item	Description
4	Bound copies	Cedar Bay - Application for Minor Source Air Construction Permit

Remarks: