SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:

Mr. Mel Keever, President
Southern Materials Corporation
P.O. Drawer 1209
Anthony, FL 32617

4. Article Number
P 274 007 529

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address
X

6. Signature — Agent
X

7. Date of Delivery
12/14/88

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1988 * U.S.G.P.O. 1988-212-865 **DOMESTIC RETURN RECEIPT**

P 274 007 529

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. Mel Keever, Southern Materials Corp.	
Street and No. P.O. Drawer 1209	
P.O., State and ZIP Code Anthony, FL 32617	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 12-13-88 Permit: AC 42-153995, -995	

PS Form 3800, June 1985 * U.S.G.P.O. 1985-480-794

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor | Dale Twachtmann, Secretary | John Shearer, Assistant Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Mel Keever, President
Southern Materials Corporation
Post Office Drawer 1209
Anthony, Florida 32617

December 12, 1988

Enclosed are permit Nos. AC 42-153994 and AC 42-153995 for Southern Materials Corporation to install baghouses for the 73" Raymond Mill and Storage Silo and 66" Raymond Mill at your facility located in Lowell, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any party to these permits has the right to seek judicial review of these permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copy furnished to:

C. Collins, CF District
J. Tessitore, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on December 13, 1988

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha J. Wise
Clerk

December 13, 1988
Date

Final Determination

Southern Materials Corporation
Marion County
Lowell, Florida

Installation of Baghouses on Raymond Mills
and Storage Silo

Permit Numbers:

AC 42-153994
AC 42-153995

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

December 5, 1988

Final Determination

The construction permit applications have been reviewed by the Department. Public Notice of the Department's Intent to Issue was published in the Ocala Star-Banner on November 18, 1988. The Technical Evaluation and Preliminary Determination were available for public inspection at the DER's Central Florida District office in Orlando and the DER Bureau of Air Quality Management office in Tallahassee.

No comments were received during the public notice period. Therefore, the final action of the Department will be to issue the construction permits as drafted.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor | Dale Twachtmann, Secretary | John Shearer, Assistant Secretary

PERMITTEE:
Southern Materials Corp.
P. O. Drawer 1209
Anthony, FL 32617

Permit Number: AC 42-153994
Expiration Date: June 30, 1989
County: Marion
Latitude/Longitude: 29° 19' 20"N
82° 11' 22"W
Project: Baghouses for 73" Raymond Mill and Silo

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the installation of two baghouses for the 73" Raymond Mill and Storage Silo. This project will be located at the applicant's facility south of Lowell in Marion County, Florida. The UTM coordinates of this site are Zone 17, 384.4 km E and 3,244 km N.

Construction shall be in accordance with the permit application and plans, documents, and reference material submitted unless otherwise stated in the Preliminary Determination and Technical Evaluation or the General and Specific Conditions herein.

Attachments:

1. Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on August 29, 1988.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153994
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The construction and operation of this source shall be in accordance with the capacities and specifications stated in the application.

2. The 73" milling unit and silo system shall be allowed to operate at a maximum rate of 15 tons per hour for up to 8,760 hours per year.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153994
Expiration Date: June 30, 1989

SPECIFIC CONDITIONS:

3. Visible emissions from the baghouse shall not be greater than 5% opacity and compliance shall be demonstrated at 90-100% of permitted capacity using DER Method 9 in accordance with F.A.C. Rule 17-2.700.

4. The compliance test shall be conducted within 30 days after operation begins and the results reported to the Department's Central Florida District office before this construction permit expires. The district office shall be notified at least 15 days in advance of the test and at least 5 days prior to the plant being placed in operation.

5. An application for a permit to operate shall be submitted to the Department's Central Florida District office at least 60 days prior to the expiration date of this permit or within 45 days of testing, whichever occurs first.

Issued this 9 day of Dec. 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Southern Materials Corp.
P. O. Drawer 1209
Anthony, FL 32617

Permit Number: AC 42-153995
Expiration Date: June 30, 1989
County: Marion
Latitude/Longitude: 29° 19' 20"N
82° 11' 22"W
Project: Baghouse for 66" Raymond Mill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the installation of a baghouse for the 66" Raymond Mill. This project will be located at the applicant's facility south of Lowell in Marion County, Florida. The UTM coordinates of this site are Zone 17, 384.4 km E and 3,244 km N.

Construction shall be in accordance with the permit application and plans, documents, and reference material submitted unless otherwise stated in the Preliminary Determination and Technical Evaluation or the General and Specific Conditions herein.

Attachments:

1. Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on August 29, 1988.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153995
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The construction and operation of this source shall be in accordance with the capacities and specifications stated in the application.

2. The 66" milling unit shall be allowed to operate at a maximum rate of 12 tons per hour for up to 8,760 hours per year.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153995
Expiration Date: June 30, 1989

SPECIFIC CONDITIONS:

3. Visible emissions from the baghouse shall not be greater than 5% opacity and compliance shall be demonstrated at 90-100% of permitted capacity using DER Method 9 in accordance with F.A.C. Rule 17-2.700.

4. The compliance test shall be conducted within 30 days after operation begins and the results reported to the Department's Central Florida District office before this construction permit expires. The district office shall be notified at least 15 days in advance of the test and at least 5 days prior to the plant being placed in operation.

5. An application for a permit to operate shall be submitted to the Department's Central Florida District office at least 60 days prior to the expiration date of this permit or within 45 days of testing, whichever occurs first.

Issued this 9 day of Dec. 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood

SUBJ: Approval of Construction Permits for Southern Materials Corporation, Numbers: AC 42-153994 and AC 42-153995

DATE: December 5, 1988

Attached for your approval and signature are two permits prepared by Central Air Permitting for the above mentioned company to install baghouses on the Raymond Mills and storage silo at their facility in Lowell, Florida.

No comments were received during the public notice period.

Day 90, after which these permits will be issued by default, is December 16, 1988.

I recommend your approval and signature.

SS/JR/s

attachments

Check Sheet

Company Name: Southern Materials Corporation
Permit Number: AC 42-153995, -994
PSD Number:
Permit Engineer:

Application:

- [x] Initial Application
  - [x] Incompleteness Letters
  - [ ] Responses
  - [ ] Waiver of Department Action
  - [ ] Department Response
  - [ ] Other

Cross References:
- [x] Franklin Limestone Company
- [ ]
- [ ]

Intent:

- [x] Intent to Issue
- [x] Notice of Intent to Issue
- [x] Technical Evaluation
- [x] BACT or LAER Determination
- [x] Unsigned Permit

  Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] Other
- [x] Proof of Publication
  - [ ] Petitions - (Related to extensions, hearings, etc.)
  - [ ] Waiver of Department Action
  - [ ] Other

Final Determination:

- [x] Final Determination
- [x] Signed Permit
- [ ] BACT or LAER Determination
  - [ ] Other

Post Permit Correspondence:

- [ ] Extensions/Amendments/Modifications
- [x] Other

Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Alex Alexander, Deputy Assistant Secretary

April 2, 1990

OCD-AP-90-0940

Ms. E. J. Le Boss
Air Observations
Post Office Box 11204
Tampa, Florida 33680

Marion County - AP
Franklin Limestone Co.
Limestone Rotary Dryer AO42-120357
Permit Modification

Dear Ms. Le Boss:

As the referenced source is located at a major air pollution facility, the request to increase the hours of operation must first be agreed to by the department's Tallahassee Central Air Permitting staff by changing the sources air construction permit. Therefore, please submit your request to that office.

If you have any questions, please call John Turner at 407-894-7555 or write to me at the above address.

Sincerely,

Alan D Zahm

Alan D. Zahm, P.E.
Supervisor, Permitting
Air Resources Management

ADZ:jtj

cc: Bill Thomas, Tallahassee CAPS

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

	Initial	Date
1. TO: (NAME, OFFICE, LOCATION) Bill Thomas P.E. III		
2. AIR BAQM		
3. CAPS		
4. Tallahassee		

REMARKS:

Southern Materials

RECEIVED

APR 11 1990

DER - BAQM

Patty, 4/13/90

File.

THANKS

Jim P.

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM: CM Collins
Air Program
Central District

DATE 4/10/90

PHONE

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:

Mr. R. W. Brann, P.E.
Vice President - Production
Southern Materials Corp.
P. O. Box 188
Lowell, FL 32663-0138

4. Article Number

P 274 007 551

Type of Service:

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Address

X Willard Snyder

6. Signature — Agent

X

7. Date of Delivery

1-9-89

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1988 ★ U.S.G.P.O. 1988-212-865 **DOMESTIC RETURN RECEIPT**

P 274 007 551

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. R. W. Brann, P.E.	
Street and No. P.O. Box 188 Southern Mater.	
P.O. State and ZIP Code Lowell, FL 32663-0188	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 1-6-89 Permit: AC 42-153994, 995	

★ U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Florida Department of Environmental Regulation
Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400
Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

January 6, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. R.W. Brann, P.E.
Vice President - Production
Southern Materials Corporation
Post Office Box 188
Lowell, Florida 32663-0188

Dear Mr. Brann:

The Department received your letter requesting transfer of all Southern Materials Corporation permits to the new owner, Franklin Limestone Company. Please complete the enclosed application for transfer of permit and have the former owner sign the section entitled "Notification of Sale or Legal Transfer". The requested changes will be made upon receipt of the completed application. Also, please state whether Franklin Limestone Company will operate under its own name or as the "Southern Materials Corporation".

Sincerely,

C. H. Fancy, P.E.
Deputy Bureau Chief
Bureau of Air Quality
Management

CHF/JR/h

cc: C. Collins - CF District

file copy

PROOF OF PUBLICATION

THE OCALA STAR-BANNER
Published—Daily
OCALA, MARION COUNTY, FLORIDA

RECEIVED
NOV 21 1988
DER - BAQM

STATE OF FLORIDA,
COUNTY OF MARION.

Before me the undersigned authority personally appeared Lynn Maxwell, who on oath says that he is Classified Manager of the Ocala Star-Banner, a daily newspaper published at Ocala, in Marion County, Florida; that the attached copy of advertisement, being a notice in the matter of #1456-Notice of Intent

_____ in the _____ Court,

was published in said newspaper in the issues of November 18, 1988

Affiant further says that the said THE OCALA STAR-BANNER is a daily newspaper published at Ocala, in said Marion County, Florida, and that the said newspaper has heretofore been continuously published in said Marion County, Florida, daily, and has been entered as second class mail matter at the post office in Ocala, in said Marion County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or cooperation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Lynn Maxwell

Sworn to and subscribed before me this 18 day of November, A.D., 1988

Kelly VanderMeer
Notary Public

(Seal)

Notary Public, State of Florida
My Commission Expires Sept. 1, 1990
Bonded Thru Troy Fain - Insurance Inc.

cc: J. Reynolds
C. Collins, CF Dist

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Southern Materials Corporation to install baghouses on the Raymond Mills and the storage silo at their facility in Lowell, Florida.

The Department is issuing this Intent to issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Adminstrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the adminstrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petiton for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Dept. of Enviornmental Regulation
Central Florida District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

No. 1456 — November 18, 1988

SMC
SOUTHERN MATERIALS CORPORATION
P.O. Drawer 1209 Anthony, FL 32617

Fold at line over top of envelope to the right of the return address

CERTIFIED

P 784 702 356

MAIL

ANTHONY FLA NOV 18 '88

U.S.POSTAGE $2.0

RECEIVED

NOV 21 1988

DER - BAQM

Mr. Bill Thomas
Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:	4. Article Number
Mr. Mel Keever President Southern Materials Corp. P. O. Drawer 1209 Anthony, FL 32617	P 274 007 516
	Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature — Agent X [signature]	
7. Date of Delivery	

PS Form **3811**, Mar. 1988 * U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P 274 007 516

RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. Mel Keever, Southern	
Street and No. P.O. Drawer 1209 Materials Corp.	
P.O., State and ZIP Code Anthony, FL 32617	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 11-14-88 Permit: AC 42-153994 -153995	

PS Form 3800, June 1985 * U.S.G.P.O. 1985-480-794

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

November 10, 1988

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Mel Keever, President
Southern Materials Corporation
Post Office Drawer 1209
Anthony, Florida 32617

Dear Mr. Keever:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits for Southern Materials Corporation to install baghouses on the Raymond Mills and the storage silo at your facility in Lowell, Florida.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/JR/s

Attachments

cc: C. Collins, Central FL District
J. Tessitore, P.E.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permits by:

Southern Materials Corp.
Post Office Drawer 1209
Anthony, Florida 32617

DER File Nos. AC 42-153994
AC 42-153995

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue permits (copies attached) for the proposed projects as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Southern Materials Corporation, applied on August 29, 1988, to the Department of Environmental Regulation for permits to install baghouses on the Raymond Mills and the storage silo at their facility in Lowell, Marion County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The projects are not exempt from permitting procedures. The Department has determined that air construction permits were needed for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit applications. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the

Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirements of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copy enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

C. Collins, CF District
J. Tessitore, P.E.

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on November 14, 1988.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha J. McKee November 14, 1988
Clerk Date

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Southern Materials Corporation to install baghouses on the Raymond Mills and the storage silo at their facility in Lowell, Florida.

The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Central Florida District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Southern Materials Corporation
Marion County
Lowell, Florida

Installation of Baghouses on Raymond Mills
and Storage Silo

Permit Numbers: AC 42-153994
AC 42-153995

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

November 10, 1988

I. Application Information

A. Applicant

Southern Materials Corporation
Post Office Drawer 1209
Anthony, Florida 32617

B. Request

The Department received two applications on August 29, 1988, for permits to install baghouses on the existing 66" Raymond Mill and a new 73" Raymond Mill as well as the storage silo at the applicant's facility in Lowell, Florida. The application was deemed complete on September 29, 1988.

C. Location/Classification

The applicant's limestone processing facility (SIC Codes 2819 and 3281) is located off State Road 25A South of Lowell. Latitude and longitude are 20°19'20"N and 82°11'22"W, respectively. The UTM coordinates of the site are: Zone 17, 384.4 km E and 3,244 km N.

II. Project Description/Emissions

Limestone is ground in a Raymond roller mill equipped with an air system classifier. The rotating components of the Raymond mill are the grinding element, double whizzer classifier, and its vertical shaft. Material is fed to the mill through a hopper system and grinding occurs when the limestone falls on the rotating grinding element. Classification results from the centrifugal force imparted by the whizzer on the ground material which is swept upward with the spiral air flow. Coarse particles are continually returned to the grinding element. A cyclone collector separates the fine particles from the recirculating air stream for transfer to the product silo.

Particulate emissions from the milling operation are contained in a closed system except for a small stream of makeup air which is purged continually through a bag collector. Material collected by the baghouse is routed to the silo. A separate pneumatic conveying system also feeds recovered material into the silo. The silo is equipped with a baghouse for control of dust from the silo vent. Total particulate emissions from the mill air system and silo vent will be 9.49 tons per year.

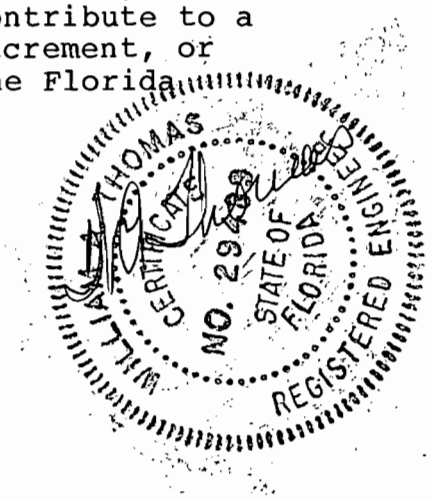
III. Rule Applicability

The construction permit applications are subject to review under Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The facility is located in an

area classified as attainment for particulate emissions. F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirement applies to this installation. The general particulate and visible emission limiting standards set forth in F.A.C. Rule 17-2.610 would apply except that, where a baghouse is installed, actual emissions are substantially below the process weight table limits. Rather than applying these limits and requiring a Method 5 compliance test, and alternative standard of 5% opacity will be specified in the permit in accordance with F.A.C. Rule 17-2.700(3)(d).

IV. Conclusion

Based on the information provided by Southern Materials Corporation, the Department has reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of an ambient air quality standard, PSD increment, or any other technical provisions of Chapter 17-2 of the Florida Administrative Code.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Southern Materials Corp.
P. O. Drawer 1209
Anthony, FL 32617

Permit Number: AC 42-153994
Expiration Date: June 30, 1989
County: Marion
Latitude/Longitude: 29° 19' 20"N
82° 11' 22"W
Project: Baghouses for 73" Raymond Mill and Silo

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the installation of two baghouses for the 73" Raymond Mill and Storage Silo. This project will be located at the applicant's facility south of Lowell in Marion County, Florida. The UTM coordinates of this site are Zone 17, 384.4 km E and 3,244 km N.

Construction shall be in accordance with the permit application and plans, documents, and reference material submitted unless otherwise stated in the Preliminary Determination and Technical Evaluation or the General and Specific Conditions herein.

Attachments:

1. Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on August 29, 1988.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153994
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The construction and operation of this source shall be in accordance with the capacities and specifications stated in the application.

2. The 73" milling unit and silo system shall be allowed to operate at a maximum rate of 15 tons per hour for up to 8,760 hours per year.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153994
Expiration Date: June 30, 1989

SPECIFIC CONDITIONS:

3. Visible emissions from the baghouse shall not be greater than 5% opacity and compliance shall be demonstrated at 90-100% of permitted capacity using DER Method 9 in accordance with F.A.C. Rule 17-2.700.

4. The compliance test shall be conducted within 30 days after operation begins and the results reported to the Department's Central Florida District office before this construction permit expires. The district office shall be notified at least 15 days in advance of the test and at least 5 days prior to the plant being placed in operation.

5. An application for a permit to operate shall be submitted to the Department's Central Florida District office at least 60 days prior to the expiration date of this permit or within 45 days of testing, whichever occurs first.

Issued this_____day of_____, 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

_____
Dale Twachtmann, Secretary

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Southern Materials Corp.
P. O. Drawer 1209
Anthony, FL 32617

Permit Number: AC 42-153995
Expiration Date: June 30, 1989
County: Marion
Latitude/Longitude: 29° 19' 20"N
82° 11' 22"W
Project: Baghouse for 66" Raymond Mill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the installation of a baghouse for the 66" Raymond Mill. This project will be located at the applicant's facility south of Lowell in Marion County, Florida. The UTM coordinates of this site are Zone 17, 384.4 km E and 3,244 km N.

Construction shall be in accordance with the permit application and plans, documents, and reference material submitted unless otherwise stated in the Preliminary Determination and Technical Evaluation or the General and Specific Conditions herein.

Attachments:

1. Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on August 29, 1988.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153995
Expiration Date: June 30, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS:

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The construction and operation of this source shall be in accordance with the capacities and specifications stated in the application.

2. The 66" milling unit shall be allowed to operate at a maximum rate of 12 tons per hour for up to 8,760 hours per year.

PERMITTEE:
Southern Materials Corp.

Permit Number: AC 42-153995
Expiration Date: June 30, 1989

SPECIFIC CONDITIONS:

3. Visible emissions from the baghouse shall not be greater than 5% opacity and compliance shall be demonstrated at 90-100% of permitted capacity using DER Method 9 in accordance with F.A.C. Rule 17-2.700.

4. The compliance test shall be conducted within 30 days after operation begins and the results reported to the Department's Central Florida District office before this construction permit expires. The district office shall be notified at least 15 days in advance of the test and at least 5 days prior to the plant being placed in operation.

5. An application for a permit to operate shall be submitted to the Department's Central Florida District office at least 60 days prior to the expiration date of this permit or within 45 days of testing, whichever occurs first.

Issued this_____day of_____, 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

_____
Dale Twachtmann, Secretary

ATTACHMENT 1

Available Upon Request

CROSS/TESSITORE & ASSOCIATES, P.A.
4763 S. CONWAY ROAD
BOX 12, SUITE F
ORLANDO, FLORIDA 32812
305/851-1484

August 26, 1988

Mr. Charles M. Collins, P.E.
Supervisor, Air Engineering
FDER-Central Florida District
3319 Maguire Blvd, Suite 232
Orlando, Florida 32812-3767

Subject: Southern Materials Corporation
73" Raymond Mill Application to Construct
C/TA #S02.442

Dear Mr. Collins:

Please find enclosed an application for the construction of a:

1) 73" Raymond Mill equipped with a Model 100 WRBS-64 Arrangement III Flex Kleen Dust Collector. This mill is used in the processing of calcium carbonate product.

2) Model 100 BVBS-25 Arrangement II G Flex Kleen Bin Vent to control emissions on the No. 5 storage silo.

3) A check in the amount of $100.00 made payable to FDER for the construction application processing fee.

The installation of these dust collection systems will result in full compliance with the FDER regulations.

If you should have any questions, please do not hesitate to call me.

Sincerely,

Gregory R. Gonzales
Environmental Specialist

GRG:kbw
Enc:a/s
cc: Bill Haughton-Southern Materials Corporation

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)	Initial / Date
Bill Thomas	
2. Bureau of Air Quality Manag.	Initial / Date
3.	Initial / Date
4.	Initial / Date

REMARKS:

RECEIVED
SEP 1 1988
DER - BAQM

INFORMATION	
	Review & Return
	Review & File
	Initial & Forward

DISPOSITION	
	Review & Respond
	Prepare Response
	For My Signature
	For Your Signature
	Let's Discuss
	Set Up Meeting
	Investigate & Report
	Initial & Forward
	Distribute
	Concurrence
	For Processing
	Initial & Return

FROM: J. Turner

DATE 8/30/88

PHONE SC 325-1202

APPLICATION TRACKING SYSTEM 08/29/88

APPL NO:153994
APPL RECVD:08/29/88 TYPE CODE:AC SUBCODE:05 LAST UPDATE:08/29/88
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:BAO APPLICATION COMPLETE:__/__/__
DER PROCESSOR:~~J TURNER~~ B. Thomas
APPL STATUS:AC DATE:08/29/88 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:42
(Y/N) N DNR REVIEW REQD? LAT/LONG:29.19.20/82.11.22
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:SOUTHERN MATERIALS/73" RAYMOND MILL
STREET:RTE C25A CITY:LOWELL
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:KEEVER, MEL
STREET:POST OFFICE DRAWER 1209 CITY:ANTHONY
STATE:FL ZIP:32617 PHONE:904-629-9715
AGENT NAME:CROSS/TESSITORE & ASSOCIATES, P.A.
STREET:4763 SOUTH CONWAY ROAD, STE F CITY:ORLANDO
STATE:FL ZIP:32812 PHONE:305-851-1484
FEE #1 DATE PAID:08/29/88 AMOUNT PAID:00100 RECEIPT NUMBER:00125289

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - __/__/__
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - - __/__/__--__/__/__
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -. __/__/__
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
F DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS - - __/__/__
G DATE FIELD REPORT WAS REQ--REC - - - - - - - - - - - - - __/__/__--__/__/__
H DATE DNR REVIEW WAS COMPLETED - - - - - - - - - - - - - - __/__/__

I DATE APPLICATION WAS COMPLETE - - - - - - - - - - - - - - __/__/__
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - __/__/__
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - __/__/__--__/__/__
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - - - - __/__/__
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - __/__/__
N WAIVER DATE BEGIN--END (DAY 90) - - - - - - - - - - - - - __/__/__--__/__/__

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 125289

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Southern Material Corp Date Aug 09 1985

Address PO Box 1404 Ardmore Ok 73401 Dollars $ 100.00

Applicant Name & Address

Source of Revenue 73" Raymond Mill

Revenue Code 311.31 OK 13605 Application Number AC45-153994

By D'Ellano

DER - BAQM

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC 42-153994

PAID AUG 29 1988 100

CENTRAL FLORIDA DISTRICT

RECEIVED SEP 1 1988

AUG 1988 RECEIVED Central Florida District

BOB GRAHAM GOVERNOR

VICTORIA J. TSCHINKEL SECRETARY

ROY DUKE DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Calcium Carbonate Rock Processing [X] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Southern Materials Corporation COUNTY: Marion

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) 1) 73" Raymond Mill w/Fabric & Filter 2) Storage Silo #5 w/Fabric Filter

SOURCE LOCATION: Street RTE C25A City Lowell

UTM: East 17-384.4 North 3244

Latitude 29 ° 19 ' 20 "N Longitude 82 ° 11 ' 22 "W

APPLICANT NAME AND TITLE: Mel Keever, President

APPLICANT ADDRESS: P.O. Drawer 1209; Anthony, Florida 32617

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Southern Materials Corp.

I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed:

Mel Keever, President
Name and Title (Please Type)

Date: 8-25-88 Telephone No. 904/629-7997

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Joseph L. Tessitore

Joseph L. Tessitore, P.E., Vice President
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4763 S. Conway Road, Suite F
Orlando, Florida 32812
Mailing Address (Please Type)

Florida Registration No. 23374 Date: 8-26-88 Telephone No. 407-851-1484

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

This project involves the installation of: (1) A 15 ton/hour, 73" Raymond Mill equipped with a Model 100 WRBS-64, Arrangement III, Flex Kleen Dust Collector and (2) A Model 100 BVBS-25 Arrangement II G Flex Kleen Bin Vent for the No. 5 storage silo; to control the particulate emissions from the calcium carbonate process. Both installations will result in full compliance with the FDER regulations as they are rated at a + 99% collection efficiency. See process description Section II-4 A.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction August 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

$80,000.00 for: Model 100 WRBS-64 Flex Kleen Dust Collector and Model 100 BVBS-25 Flex Kleen Bin Vent

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC42-105911 Ball Mill No. 1 issued January 14, 1986
Expired July 31, 1986

This 73" Raymond Mill will be installed where the previous Ball Mill No. 1 was located.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO

   a. If yes, has "offset" been applied? N/A

   b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A

   c. If yes, list non-attainment pollutants. NO

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? N/A

   a. If yes, for what pollutants? N/A

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

For 73" Raymond Mill

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	100	30,000	Section V Item 6

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 30,000

2. Product Weight (lbs/hr): 29,999.1

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.9	3.93	17-2.610(1)(b)	19.2	90	393	Section V Item 6
From 73" Raymond Mill							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)
for Storage Silo No.5 when used with the 73" Raymond Mill

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	100	29,999.1	Section V Item 6

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 29,999.1

2. Product Weight (lbs/hr): 29,998.8

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate from Storage	0.3	1.31	17-2.610(1)(b)	19.2	29.99	131	Section V Item 6
silo #5-Bin Vent							
When using							
the 73" Raymond Mill							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

For Storage Silo No. 5 when used with both the 66" & 73" Raymond Mills.

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	100	23,999.3	Section V Item 6
			From 66" Mill	
Limestone			29,999.1	" "
			From 73" MI11	

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 53,998.4

2. Product Weight (lbs/hr): 53,997.9

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	0.54	2.36	17-2.610(1)(b)	27.7	53.96	235.7	Section V Item 6
From Storage Silo No.5 when							
used with both the 66" & 73"							
Raymond Mills							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Model 100 WRBS-64	Particulate	99.9%	Greater than 10 Micron	Section V
Dust Collector for				Item 5
73" Raymond Mill				
Model 100 BVBS Bin	Particulate	99.9%	" "	Section 5
Vent Collector for No. 5 Silo				Item 5A

E. Fuels N/A

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: N/A

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum N/A

G. Indicate liquid or solid wastes generated and method of disposal.

N/A

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 98 ft. Stack Diameter: 1.33 ft.

Gas Flow Rate: 3500 ACFM --- DSCFM Gas Exit Temperature: 70 °F.

Water Vapor Content: Ambient % Velocity: 41.7 FPS

See Calculation Sheet

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Storage Silo No.5
on Model 100 BVBS-25 Bin Vent

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 98 ft. Stack Diameter: 0.6 ft.

Gas Flow Rate: 1500 ACFM --- DSCFM Gas Exit Temperature: 70 °F.

Water Vapor Content: Ambient % Velocity: 71.8 FPS

See Calculation Sheet Section A

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

DER Form 17-1.202(1)
Effective November 30, 1982

Brief description of operating characteristics of control devices:

N/A

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

N/A

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N/A

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^{2*} _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

I. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

J. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

K. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

L. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

M. Attach all other information supportive to the PSD review.

N. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

O. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

SOUTHERN MATERIALS CORPORATION

SECTION II A

SMC ROLLER MILL INSTALLATION

BASIC PROCESS DESCRIPTION

This process will involve the crushing, grinding and air classification of calcium carbonate to a product specification of 98% passing 200 mesh. The as-mined material will be crushed and dried in an existing facility, belt conveyed to an existing feed bin, and then fed to a proposed 73" Raymond Roller Mill with a double-whizzer classifier for grinding and classification, with the over-size reject material being fed back to the roll section for re-grinding. The on-spec material is airlifted out of the Raymond Mill up to a cyclone where 90+% of the product material is removed from the airstream. The outlet from the cyclone is ducted back to the system fan inlet, completing the closed loop air stream process. A small percentage of the air stream, containing a portion of the fine fraction material, is pulled off between the system fan and the air inlet to the Roller Mill and vented to a small dust collector.*

The product from both the cyclone and dust collector is discharged through air-locks into a screw conveyor. The screw conveyor discharges into a diverter gate which will direct the product to another screw conveyor that discharges the product into a product bulk storage silo or direct the product to a third screw conveyor that discharges the product into a classifier feed bin.

The bulk storage silo also may receive product from a Fuller-Kinyon air conveying line. Therefore, the silo will have a proposed bin vent installed to capture any dust that might otherwise be vented to atmosphere during operation of the F-K system.**

An existing 66" Roller Mill also discharges a similar product into the bulk storage silo from its cyclone and dust collector.***

* - Point 2 on Section V; Item 6; Flow Diagram
** - Point 4 on Section V; Item 6; Flow Diagram
*** - Point 3 on Section V; Item 6; Flow Diagram

SECTION V: 73" Raymond Mill Calculations on Model 100 WRBS-64 Dust Collector

SUPPLEMENTAL REQUIREMENTS

1) Process Input Rate = 15 tons/hr

Operation time 24 hr/day, 7 day/week, 52 weeks/yr

Process Input Rate =

15 tons/hr x 2000 lb/ton = 30,000 lbs/hr

Product Weight = Process input - Actual Emissions

= 30,000 lb/hr - .90 lb/hr

= 29.999.1 lb/hr

= 29.999.1 lb/hr x 1 ton/2000 lbs

= 14.99 tons/hr

EMISSIONS ESTIMATES:

2) Actual Emissions:

The baghouse efficiency is plus 99 percent

Actual Emission = Potential (1-.99)

= 90 lb/hr (1-.99)

= .90 lb/hr = 3.93 tons/yr

Allowable Emissions:

$E = 3.59\ p^{.62}$

Process Weight = P = 15 tons/hr

$E = 3.59\ (15)^{.62}$

= 19.2 lb/hr

3) Potential Emissions (Uncontrolled Emission)

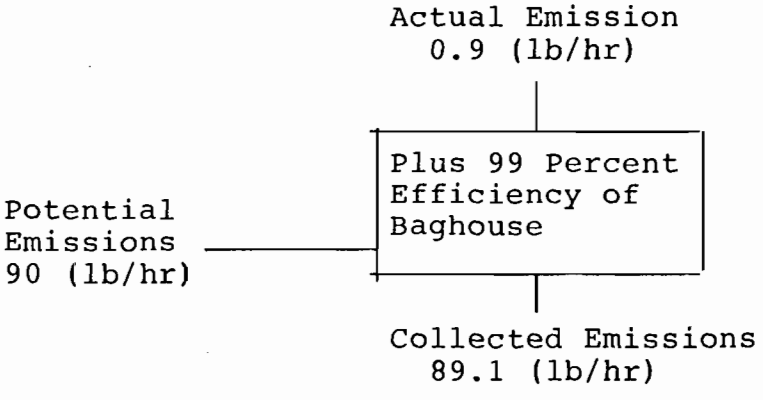
See Page 22

15 tons/hr x 6 lbs/ton = 90 lb/hr

90 lb/hr x 1 ton/2000 lbs x 24 hr/day x

7 days/wk x 52 wks/yr = 393 tons/yr

EMISSIONS



Collected Emissions = Potential - Actual

= 90 - 0.9 = 89.1 lb/hr

4) Air to Cloth Ratio: 73" Raymond Mill on Model 100 WRBS-64 Dust Collector

Flex Kleen Dust Collector Model 100 WRBS-64 Arrangement III

64 bags (Fabric Filters)

Dimension of bags: Height = 100"

The cloth area = 813 ft^2

System flow rate 3500 CFM

Air/Cloth = 3500 CFM x $\frac{1}{813\ ft^2}$ = 4.3 ft/min.

Stack: Diameter 1.33 ft = 16 inch

Area = 1.4 ft^2

Velocity = 3500 CFM/(1.4 ft^2 x 60 sec/min)

Velocity = 41.7 ft/sec

Gas Flow Rate = 3500 CFM @ 70°F

SECTION V: Calculations when using the 73" Raymond Mill on Storage Silo No. 5 on Model 100 BVBS-25 Bin Vent

SUPPLEMENTAL REQUIREMENTS

1)A Process Input Rate = 14.99 tons/hr

Operation time 24 hr/day, 7 day/week

52 weeks/yr

Process input rate =

14.99 tons/hr x 2000 lb/ton = 29,999.1 lbs/hr

Product Weight = Process input - actual emissions

= 29,999.1 lb/hr - 0.3 lb/hr

= 29,998.8 lb/hr

= 29,998.8 lb/hr x 1 ton/2000 lbs

= 14.99 tons/hr

EMISSIONS ESTIMATES:

2)A Actual Emissions:

The baghouse efficiency is plus 99 percent

Actual Emission = Potential (1-.99)

= 29.99 lb/hr (1-.99)

= 0.3 lb/hr = 1.31 tons/yr

Allowable Emissions:

$E = 3.59\ P^{.62}$

Process Weight = P = 15 tons/hr

$E = 3.59\ (14.99)^{.62}$

= 19.2 lb/hr

STORAGE SILO NO. 5

CALCULATIONS ON MODEL 100 BVBS-25 BIN VENT
WHEN USING THE 73" RAYMOND MILL

3)A Potential Emissions (Uncontrolled Emission)

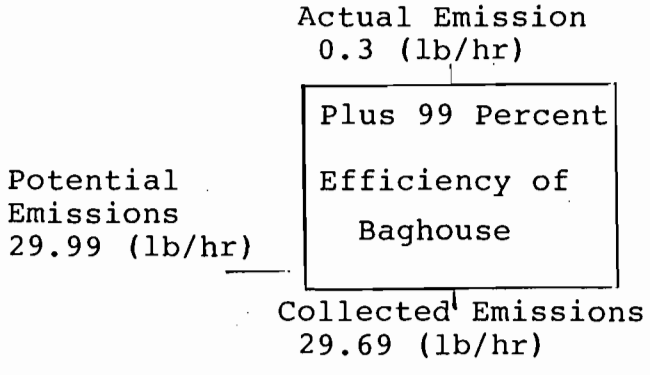
From Page 22

14.99 tons/hr x 2 lbs/ton = 29.99 lb/hr

29.99 lb/hr x 1 ton/2000 lbs x 24 hr/day x

7 days/wk x 52 wks/yr = 131 tons/yr

Collected Emissions



Collected Emissions = Potential - Actual

29.99 - 29.69 = 0.3 lb/hr

4)A Air to Cloth Ratio: Storage Silo No.5
on Model 100 BVBS-25 Bin Vent

25 bags (Fabric Filters)

Dimension of the bags: Height = 100"

The cloth area = 318 ft^2

System flow rate 1500 CFM

Air/Cloth = 1500 CFM x $\frac{1}{318\ ft^2}$ = 4.7 ft/min.

Air/Cloth Ratio = 4.72/1

Stack: Diameter 0.6 ft = 8 inch

Area = 0.35 ft^2

Velocity = 1500 CFM/(0.35 ft^2 x 60 sec/min)

Velocity = 71.8 ft/sec

Gas Flow Rate = 1500 CFM @ 70°F

SECTION V: Calculations when using both the 66" & 73" Raymond Mills on Storage Silo No. 5 on Model 100 BVBS-25 Bin Vent

SUPPLEMENTAL REQUIREMENTS

1)b Process Input Rate = 26.98 tons/hr

Operation time 24 hr/day, 7 day/week, 52 weeks/yr

Process input rate = 11.99 ton/hr + 14.99 ton/hr =

26.98 tons/hr x 2000 lb/ton = 53,960 lbs/hr

Product Weight = Process input - actual emissions

= 53,960 lb/hr - 0.54 lb/hr

= 53,959.46 lb/ hr

= 53,959.46 lb/hr x 1 ton/2000 lbs

= 26.98 tons/hr

EMISSIONS ESTIMATES:

2)b Actual Emissions:

The baghouse efficiency is plus 99 percent

Actual Emission = Potential (1-.99)

= 53.96 lb/hr (1-.99)

= 0.54 lb/hr = 2.36 tons/yr

Allowable Emissions:

$E = 3.59\ P^{.62}$

Process Weight = P = 15 tons/hr

$E = 3.59\ (26.98)^{.62}$

= 27.7 lb/hr

STORAGE SILO NO. 5

CALCULATIONS ON MODEL 100 BVBS-25 BIN VENT

WHEN USING BOTH THE 66" & 73" RAYMOND MILLS

3)b Potential Emissions (Uncontrolled Emission)

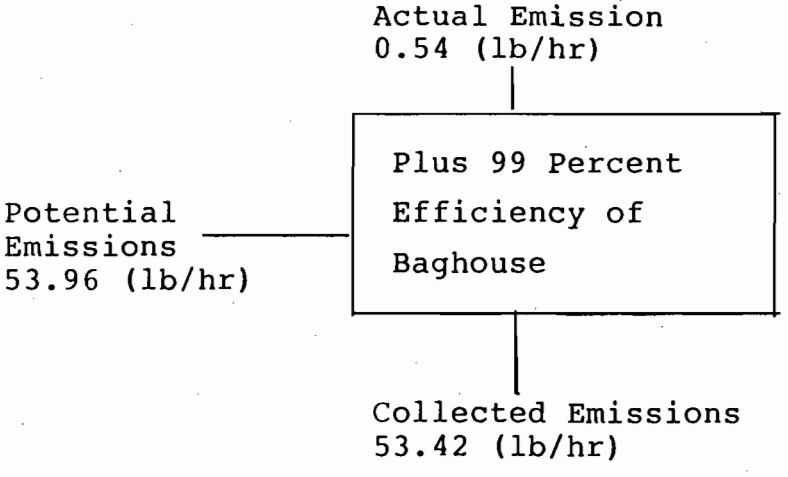
From Page 22

26.98 tons/hr x 2 lbs/ton = 53.96 lb/hr

53.96 lb/hr x 1 ton/2000 lbs x 24 hr/day x 7 days/wk

x 52 wks/yr = 235.7 tons/yr

Collected Emissions



Collected Emissions = Potential - Actural

53.96 - 53.42 = 0.54 lb/hr

8.20.1 Process Description[1]

Rock and crushed stone products are loosened by drilling and blasting them from their deposit beds and are removed with the use of heavy earth-moving equipment. This mining of rock is done primarily in open pits. The use of pneumatic drilling and cutting, as well as blasting and transferring, causes considerable dust formation. Further processing includes crushing, regrinding, and removal of fines.[2] Dust emissions can occur from all of these operations, as well as from quarrying, transferring, loading, and storage operations. Drying operations, when used, can also be a source of dust emissions.

8.20.2 Emissions[1]

As enumerated above, dust emissions occur from many operations in stone quarrying and processing. Although a big portion of these emissions is heavy particles that settle out within the plant, an attempt has been made to estimate the suspended particulates. These emission factors are shown in Table 8.20-1. Factors affecting emissions include the amount of rock processed; the method of transfer of the rock; the moisture content of the raw material; the degree of enclosure of the transferring, processing, and storage areas; and the degree to which control equipment is used on the processes.

Table 8.20-1. PARTICULATE EMISSION FACTORS FOR ROCK-HANDLING PROCESSES
EMISSION FACTOR RATING: C

Type of process	Uncontrolled total[a] lb/ton	Uncontrolled total[a] kg/MT	Settled out in plant, %	Suspended emission lb/ton	Suspended emission kg/MT
Dry crushing operations[b,c]					
Primary crushing	0.5	0.25	80	0.1	0.05
Secondary crushing and screening	1.5	0.75	60	0.6	0.3
Tertiary crushing and screening (if used)	6	3	40	3.6	1.8
Recrushing and screening	5	2.5	50	2.5	1.25
Fines mill	6	3	25	4.5	2.25
Miscellaneous operations[d]					
Screening, conveying, and handling[e]	2	1			
Storage pile losses[f]					

[a] Typical collection efficiencies: cyclone, 70 to 85 percent; fabric filter, 99 percent.

[b] All values are based on raw material entering primary crusher, except those for recrushing and screening, which are based on throughput for that operation.

[c] Reference 3.

[d] Based on units of stored product.

[e] Reference 4.

[f] See section 11.2.3.

EPA-450/3-77-010

TECHNICAL GUIDANCE FOR CONTROL OF INDUSTRIAL PROCESS FUGITIVE PARTICULATE EMISSIONS

by

PEDCo Environmental, Inc.
Chester Towers
11499 Chester Road
Cincinnati, Ohio 45246

Contract No. 68-02-1375
Task No. 33
Project No. 3155-GG

EPA Project Officer: Gilbert H. Wood

Prepared for

ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

March 1977

industry, in terms of individual plant production (amount of limestone processed and subsequent disposition in the form of aggregate construction material, quicklime, and a variety of hydrated lime products), the plant inventory is not meant to display a typical plant, but merely a model plant with arbitrarily selected individual process operation throughputs.

By-product lime from quicklime screening (fines) and the lime hydration air separator are further processed or stored for local markets (e.g. local farmers for agricultural use). Fugitive emissions collected from fabric filters and other removal equipment are most often returned to process streams; those which cannot be returned to process streams are hauled to lime storage or waste piles.

Not included in the inventory are fugitive emissions from plant haul roads, waste areas, and quarrying operations. Emission factors for these sources are presented in Sections 2.1 and 2.6. Total model plant uncontrolled process fugitive particulate emissions are 129 Mg (141 tons) per year.

2.9.4 Characteristics of Fugitive Emissions

Fugitive particulate emissions from lime production consist basically of limestone dust from operation prior to calcination and lime dust from operation following calcination. Fugitive particulate emission from limestone storage, handling, and transfer typically has a mean particulate diameter of 3-6 μm, 45-70 percent of which are less than 5 μm.[6]

Little other information concerning fugitive particulate emission characteristics from lime production is available. The following information pertaining to stack emissions characteristics is presented since they most likely closely parallel those of fugitive emissions.[7,8]

SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 4

73" Raymond Mill
Dust Collection System

Southern Materials Corporation
Section V
Item 4

E-CON INC. 125 POWERS FERRY ROAD · MARIETTA, GEORGIA 30067 404/977-7726

June 27, 1988

Mr. Jim Gann
GPWD & Associates
Suite 200
1365 Peachtree Street NE
Atlanta, GA 30309

SUBJECT: Flex-Kleen Dust Collector & Accessories
Southern Materials Corp. Project
E-CON No. C88-198

Dear Jim:

In accordance with our visit today, we are pleased to confirm our complete proposal for the dust collectors and accessories as outlined for this project.

We understand your requirements to be as follows:

73" RAYMOND MILL COLLECTOR:

OPERATING CONDITIONS

Application:	Venting Raymond Mill
Dust Type:	Calcium Carbonate
Gas Volume:	3,500 ACFM
Gas Temperature:	Ambient
Dust Loading:	10-20 gr/ACF assumed
Particle Size:	Unknown
Moisture:	Dry
Location:	Outdoors

Based on the above conditions, we propose to supply the following:

One (1) Model 100WRBS-64, Arrangement III, Flex-Kleen Dust Collector as generally described in attached WR Bulletin with dimensions and construction details as generally shown on Planograph A-85JF-042.

The collector will have 813 sq. ft. of filter cloth area (64 bags) and will provide an air-to-cloth ratio of 4.31/1 at 3,500 ACFM at 70°F.
The unit will include the following features and equipment.

- Welded mild steel housing designed to withstand 17" w.g. positive or negative pressure, with two (2) 20" X 44" quick opening, hinged man access doors with sloped ledge.

TELEX (ESL) 62934325 • FAX (404) 973-2551

- Welded mild steel clean air plenum with 10 ga. mild steel adequately braced tube sheet, top access port, Schedule 40 mild steel internal air piping and flanged gas outlet.
- Welded mild steel hopper with 60^{0} sloping sides, flanged gas inlet with internal baffle and flanged material discharge outlet, drilled to accept 8" rotary airlock as outlined below.
- Mild steel saddle supports for mounting support.
- Mild steel compressed air header assembly, complete with pre-piped aluminum diaphragm valves and pilot solenoid air valves pre-wired to a terminal strip in a NEMA 4 enclosure.
- Mild steel bag cages.
- Die-cast aluminum venturi nozzles (1/8" minimum section) and galvanized bag cups.
- 304 stainless steel bag clamps.
- 16 oz, polyester felted filter bags (100" long).
- Astro-Flex electronic sequential timer in NEMA 4 enclosure for remote mounting by others.
- Direct reading differential pressure gauge.
- Air pressure gauge.
- All exterior mild steel surfaces to have one (1) air-dried coat of shop applied primer.

The unit will be shipped in one (1) piece; bags, clamps, cages, timer, timer enclosure and gauges shipped separately to prevent damage in transit.

PRICE.....

<u>OPTIONS/ACCESSORIES</u>

One (1) FK-8X8-HD Flex-Kleen Heavy Duty rotary airlock in cast iron construction with 6 vane fabricated rotor, outboard bearings, external packing gland, speed reducer with 3/4 HP, TEFC C-faced motor and chain drive with guard.

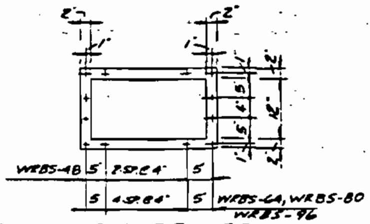
PRICE.....$

SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 4

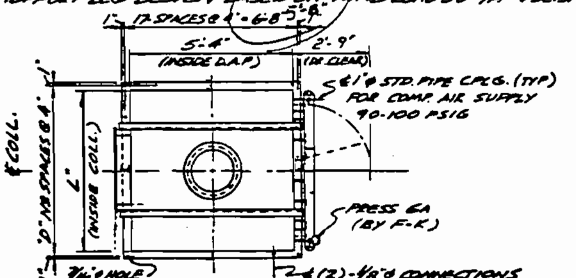
NOTES:
1) COMPRESSED AIR USAGE IS BASED ON AVERAGE TIMER SETTINGS FOR A PROPERLY SIZED DUST COLLECTOR
2) MODELS WRBS-64 THRU WRBS-96 WILL HAVE TWO (2) QUICK ACCESS DOORS.
3) DESIGN PRESSURE IS ±17" W.G.
4) WHEN DUTCHMAN/PLATFORM IS INCLUDED W/UNIT THE MODEL BECOMES "ARR. IIG" OR "IIIG".
5) DRAWINGS IS TO BE USED FOR GENERAL ARRANGEMENT ONLY AND NOT TO BE USED FOR FIELD CONSTRUCTION UNLESS IT IS CERTIFIED
ALL EXTERIOR MILD STEEL SURFACES TO HAVE ONE (1) SHOP PRIME COAT
INLETS AND OUTLETS HAVE BEEN SIZED FOR AN APPROXIMATE AIR-CLOTH RATIO OF 8/1. CHECK WITH FLEX-KLEEN OFFICE WHEN RATIOS EXCEED 8/1.
AIR VOLUMES ARE IN EXCESS OF MAXIMUM SHOW IN TABLE.
SUPPORT LEG DESIGN BASED ON WIND LOAD 30 #/FT² & SEISMIC ZONE-2

* WEIGHT IN TABLE IS FOR ARRANGEMENT III
** OVERALL DIMENSION IS GIVEN FOR ARRANGEMENT IIIG. SUBTRACT 7" IF DUTCHMAN GRID IS NOT REQUIRED.
D.A.P. = DUSTY AIR PLENUM
C.A.P. = CLEAN AIR PLENUM

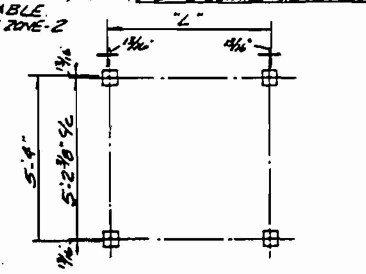
		66" MILL	73" MILL		
MODEL - 84/100		WRBS-48	WRBS-64	WRBS-80	WRBS-96
NO OF BAGS		48	64	80	96
(F) CLOTH AREA (FT²)		504 / 610	678 / 813	848 / 1016	1018 / 1219
DIMENSIONS	L	4'-0"	5'-4"	6'-8"	8'-0"
	A	4'-3"	4'-3"	5'-5"	6'-6"
	** B	14'-2" / 15'-6"	14'-2" / 15'-6"	15'-4" / 16'-8"	16'-5" / 17'-9"
	C	1'-5"	1'-6"	1'-7"	1'-8"
	D	13	17	21	25
	INLET O.D.	15"	16"	20"	22"
	OUTLET SIZE	12" x 16"	12" x 24"	12" x 24"	12" x 24"
CLEARANCE HEIGHT (FIXED)		4'-0"	[illegible]	4'-0"	4'-0"
NO OF SOLENOIDS		6	8	10	12
COMP. AIR REQMTS. SCFM @ 90-100 PSIG		9.5	11.3	13.5	15.0
* WEIGHT (LBS)		2060 / 2350	2460 / 2700	3000 / 3300	3480 / 3800
MAXIMUM AIR VOLUME (ACFM) SEE NOTE 7		4,600	6,200	7,200	8,100
		WITH LEGS	NO LEGS		



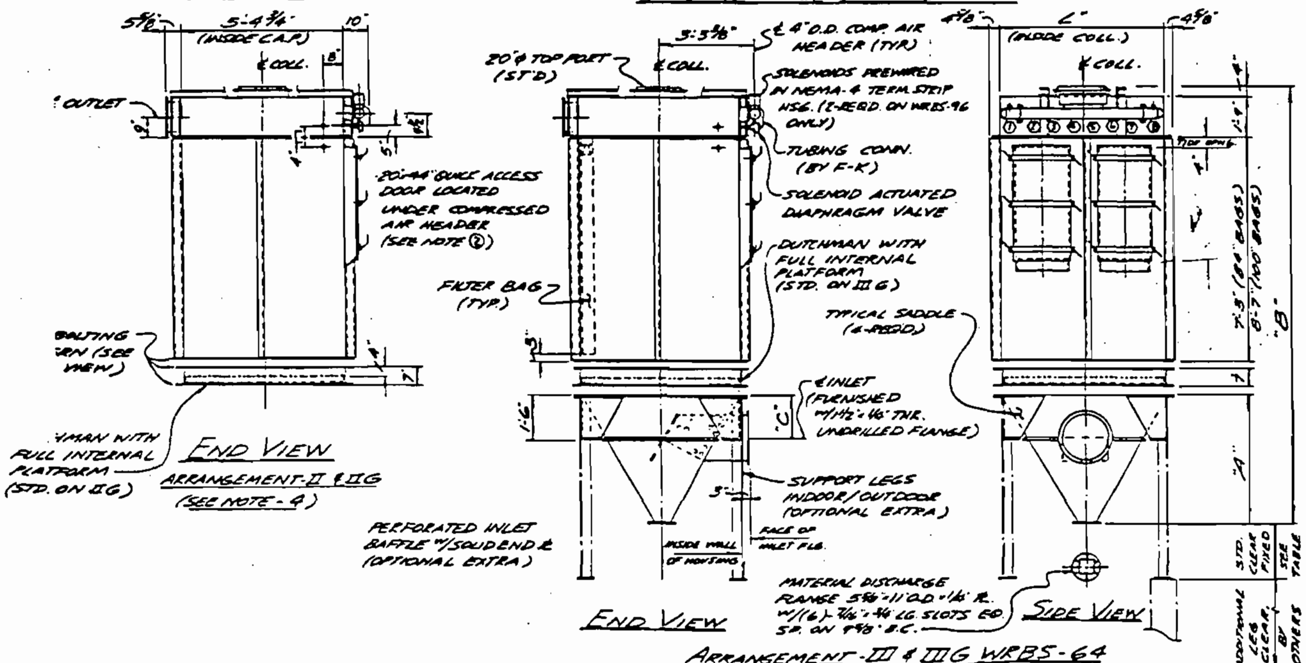
OUTLET FLANGE
(BOLTING DETAILS - 7/16" ϕ HOLES TYP)

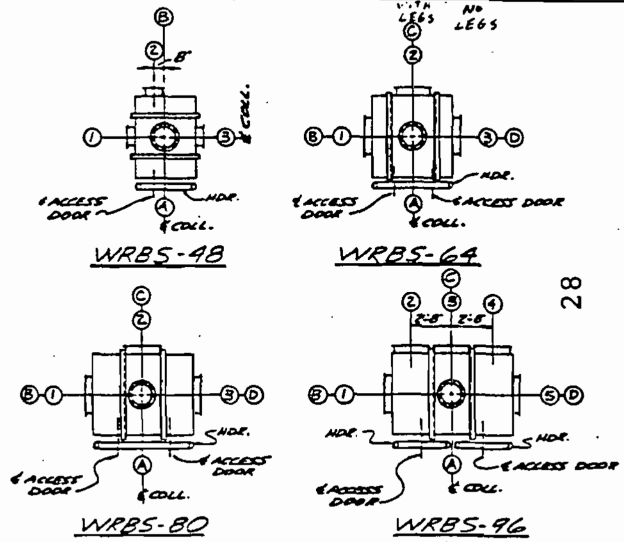


TOP VIEW



SADDLE AND SUPPORT LEGS
(1 1/16" ϕ HOLES)
ANCHOR BOLT ARRANGEMENT





TYPICAL INLET & OUTLET LOCATIONS

28

CUSTOMER TO INDICATE MODEL NUMBER & DESIRED INLET & OUTLET LOCATION

MODEL No.
DESIRED OUTLET LOCATION (1,2,3,4 or 5) — ◯
(ONE OUTLET PER UNIT)
DESIRED INLET LOCATION (A,B,C or D) — ◯
(ONE INLET PER UNIT)

Dust collection Systems

MARK	REVISION	DATE	BY
(F)	REVISED CLOTH AREA	8-3-81	
(E)	REDRAWN, INCORPORATING SECTIONS "C" THRU "D", REV. STIFFENER LAYOUT ON CLEAN AIR PLENUM OF TOP, END & SIDE VIEWS	5-D-81	

FLEX-KLEEN CORPORATION

GENERAL DATA

MODEL WRBS-48 THRU WRBS-96 — DRAWING NO. A-761-269 — REV. F

130-16-0032 F

SOUTHERN MATERIALS CORPORATION

SECTION V

ITEM 4-A

Storage Silo No. 5
Bin Vent Dust Collection System

SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 4A

Based on the above conditions, we propose to supply the following:

One (1) Model 100BVBS-25, Arrangement IIG, Flex-Kleen Bin Vent as generally described in attached BV Bulletin with dimensions and construction details as generally shown on Planograph A-84JF-153.

The collector will have 318 sq. ft. of filter cloth area (25 bags) and will provide an air-to-cloth ratio of 4.72/1 at 1,500 ACFM at 70°F.

The unit will include the following features and equipment.

- Welded 12 ga. mild steel housing designed to withstand 17" w.g. positive or negative pressure, with one (1) 20" X 44" quick opening, hinged man access door and full internal grid below bags made of #4 ga. mild steel mesh with 4" X 4" opening, designed to prevent bags from dropping into hopper and braced to support the weight of a man.

- Welded 12 ga. mild steel clean air plenum with 12 ga. mild steel adequately braced tube sheet, Schedule 40 mild steel internal air piping and stub pipe gas outlet.

- Mild steel mounting flange at bottom of housing for attachment to flange on customer's bin, silo, etc.

- Mild steel compressed air header assembly, complete with pre-piped aluminum diaphragm valves and pilot solenoid air valves pre-wired to a terminal strip in a NEMA 4 enclosure.

- Mild steel bag cages.

- Die-cast aluminum venturi nozzles (1/8" minimum section) and galvanized bag cups.

- 304 stainless steel bag clamps.

- 16 oz. polyester felted filter bags (100" long).

- Astro-Flex electronic sequential timer mounted in solenoid enclosure outlined above.

- Direct reading differential pressure gauge.

- Air pressure gauge.

- All exterior mild steel surfaces to have one (1) air-dried coat of shop applied primer.

The unit will be shipped in one (1) piece; bags, clamps, cages, timer, timer enclosure and gauges shipped separately to prevent damage in transit.

PRICE.....

OPTIONS/ACCESSORIES

One (1) Model PB-12 roof mounted, direct driven fan in aluminum construction with cast aluminum wheel, combination adjustable damper/weatherhood with bird screen and 3 HP, 3,450 rpm, 3/60/230/460 volt, TEFC motor. Unit to deliver up to 1,140 acfm at 5" S.P. at 70°F.

PRICE.....

Shipment can be made in seven to eight (7-8) weeks after receipt and acceptance of Purchase Order at factory with full particulars or upon final approval of submittal drawings, whichever is applicable.

If approval is required, allow three to four (3-4) weeks for first submittal of "Certified Drawings for Approval" and two to three (2-3) weeks for each resubmittal, if required.

Equipment is quoted F.O.B. shipping point, freight pre-paid but not allowed.

Prices quoted are firm for thirty (30) days.

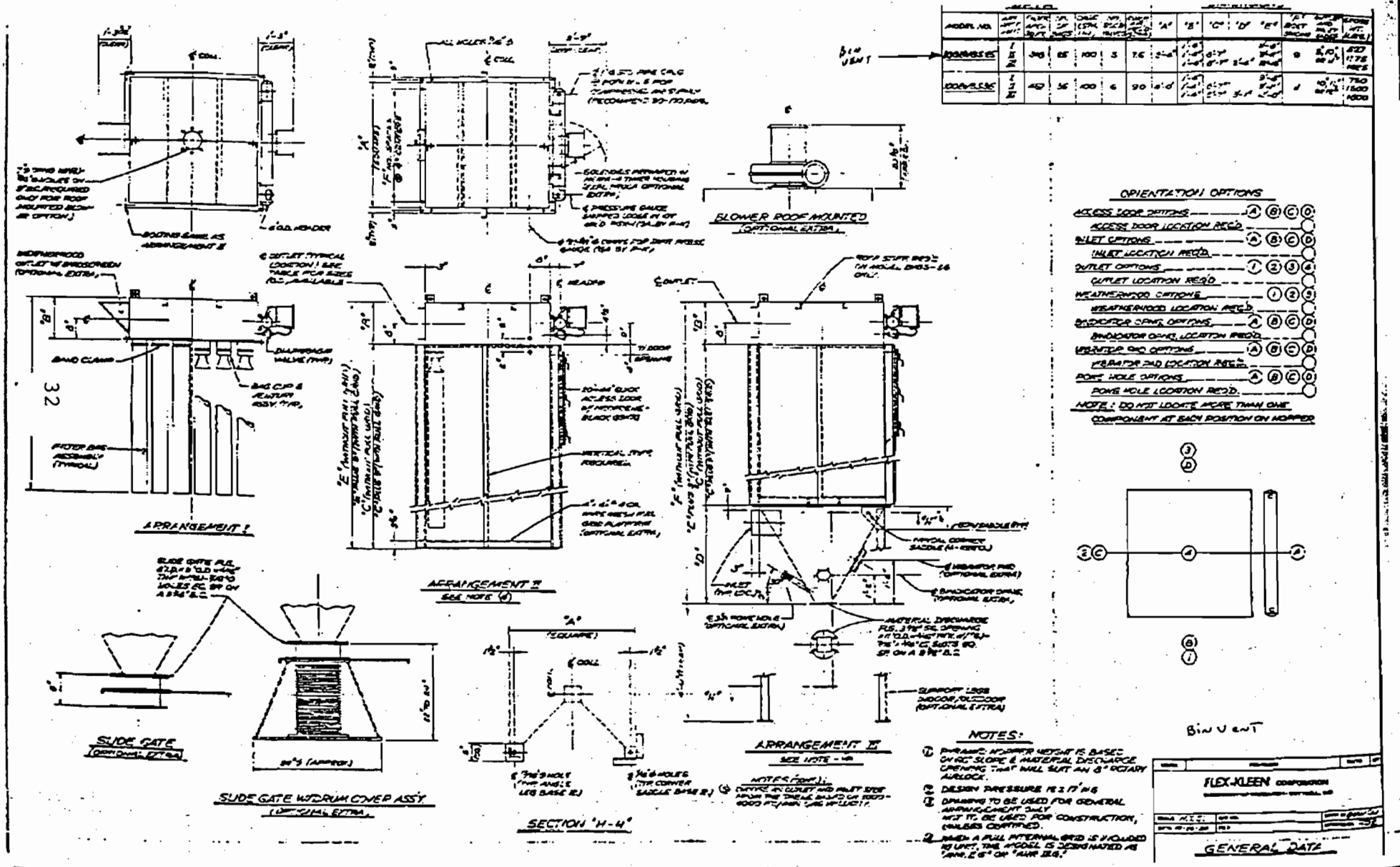
Prices will remain firm for shipment up to six (6) months from date of order acceptance. Beyond this six (6) month period, escalation as outlined in attached Flex-Kleen Terms and Conditions of Sale will apply.

Taxes are not included in above prices.

Our Terms of Payment are net thirty (30) days.

Should you honor us with this order, it should be addressed as follows:

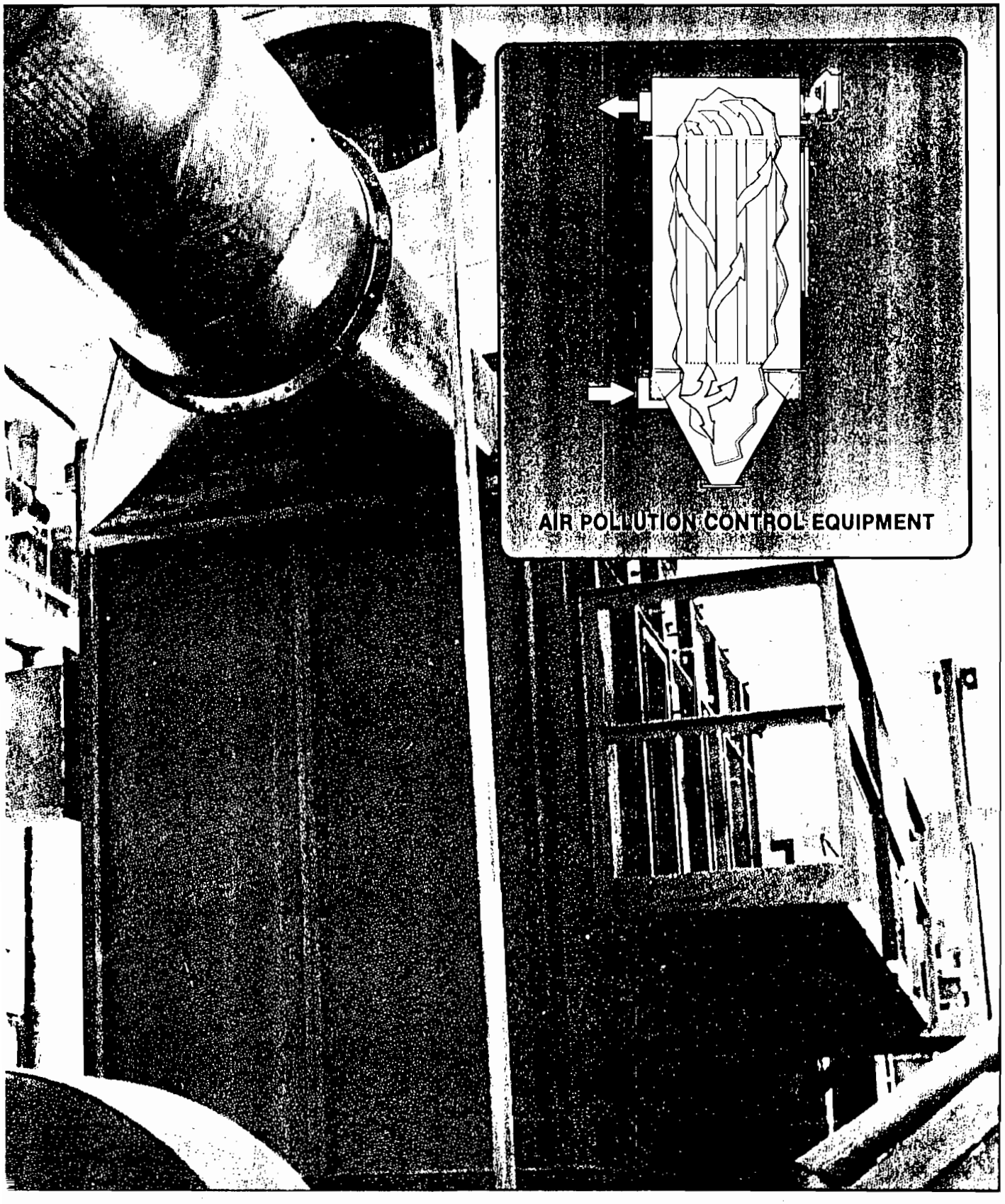
Flex-Kleen Corporation
c/o E-CON, INC.
125 Powers Ferry Road
Marietta, Georgia 30067



SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 5

73" Raymond Mill
Dust Collection System

WR Series
Welded Pulse Jet Dust Collectors



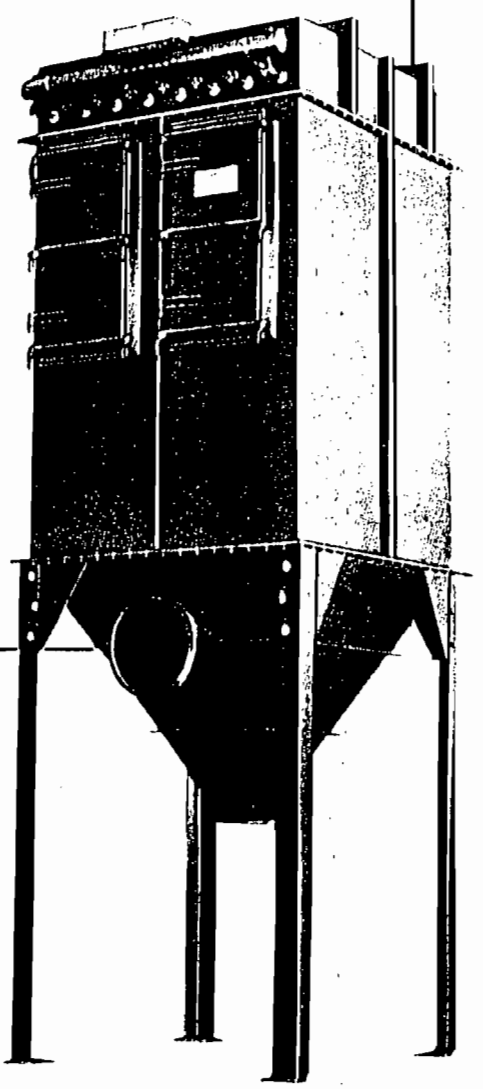
Flex-Kleen
Research-Cottrell

WR Series offers excellent filtration efficiency — for product recovery systems, large bin venting applications and general nuisance dust collection.

Advantages

The WR Series of welded pulse jet dust collectors offers:

- **Easy installation**
  Depending on size, unit may be shipped completely assembled. Or, welded sections are shop assembled for quick and easy field erection, low field labor costs.
- **Quick-mounting air headers**
  In most cases, compressed air headers are shipped pre-wired and pre-piped, ready to mount.
- **Low operating costs**
- **Timer reduces energy costs**
  Adjustable timer maintains low pressure drop, with minimum compressed air consumption. Energy costs are reduced.
- **Differential pressure gauge**
  Supplied as a standard item to evaluate collector operation and optimize bag cleaning capacity.
- **Minimum maintenance**
  No internal moving parts. Interior maintenance is greatly reduced. Collector shut-down is minimized.
- **Quick bag replacement**
  Bag and cage are designed to attach easily, permitting quick bag replacement.



Features

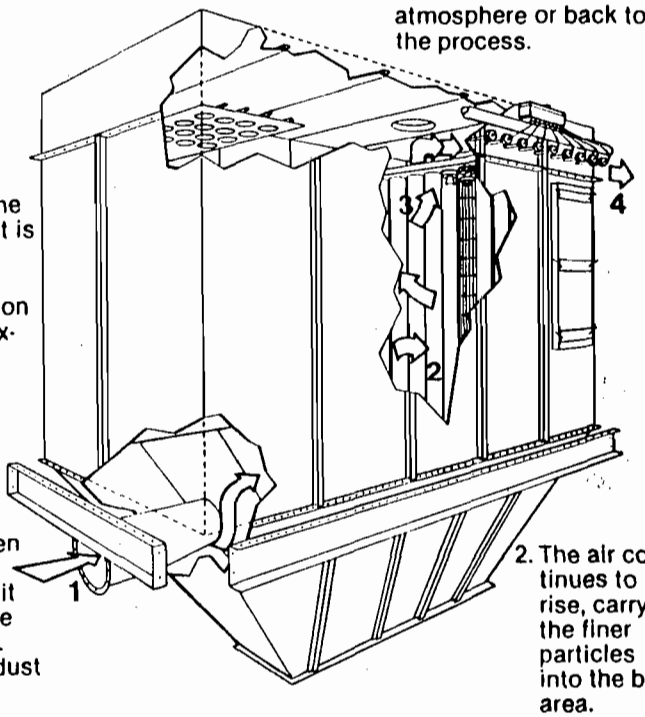
- Models available with bottom *and* top bag removal.
- Durable construction of welded 12 gauge hot rolled steel.
- Flanged air inlet, outlet and flanged dust discharge.
- 20" diameter top access port(s) to clean air plenum.
- Heavy gauge, cast aluminum venturis.
- Heavy duty, smooth wire cages.
- NEMA 4 (weathertight) electricals.
- Corner saddle supports – through 96 bag size.
- Six inch girth channel for continuous support – on sizes larger than 96 bags.
- Weatherproof walk-in clean air plenum (applies to top bag removal only).
- Differential pressure and air header gauges.
- Door sills have built-in 45° slopes.

Options

- Top bag removal with lift-off doors or walk-in plenum.
- Bag cages epoxy coated or 304SS.
- Wide range of interior coatings.
- Electrical components rated for hazardous service.
- Inlet baffle with target plate.
- Full internal service grid.
- Standard legs.
- Standard exterior access platform.
- Quick release bag clamp (bottom bag removal only).
- High efficiency filter bags, in a variety of materials.

WR Series operation

WR Units are high efficiency intermediate filters, operating as follows:

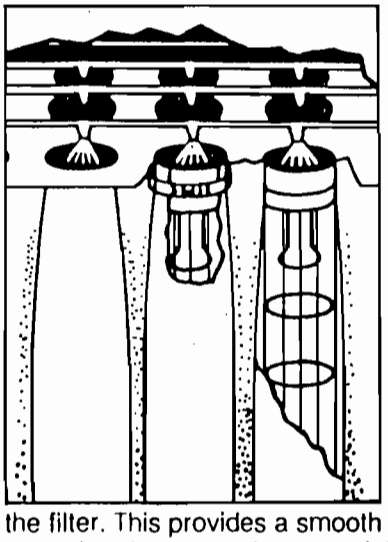


Pulse jet bag cleaning

A pneumatic pulse jet system provides continuous, automatic bag cleaning.

On a timed cycle, a burst of compressed air is directed down through a venturi at the top of the bag. This induces clean air into the bag, setting up a pneumatic shockwave inside it. The airflow through the bag is momentarily stopped, the bag is firmly flexed, causing the accumulated dust particles to drop off of the bag into the silo or collector hopper.

Since only one row of bags is cleaned at a time there is no



the filter. This provides a smooth operating dust control or material handling system.

Equipment characteristics

WR collectors are design engineered for product recovery systems, general nuisance dust control and large bin venting situations. They feature a low-pressure design, with a rating of 17" W.G. as a standard requirement. These welded units have a capacity to 18,000 CFM, with high air-to-cloth ratios and excellent filtration efficiencies. Units range from 509 to 2,438 sq. ft. of cloth in large selection of sizes. Unit width is 5'4" (with no walkways) with 8 bags per row. Length varies from 4' to 16'. Bags, cages, and headers are shipped separately to avoid damage in transit.

Equipment arrangements

WR units can be purchased in three basic arrangements, to satisfy specific user requirements.

I. Clean air plenum and bag cleaning mechanism, flanged at tube sheet for mounting on customer's equipment.

II. Clean air plenum, bag cleaning mechanism and baghouse, flanged for mounting on user's equipment.

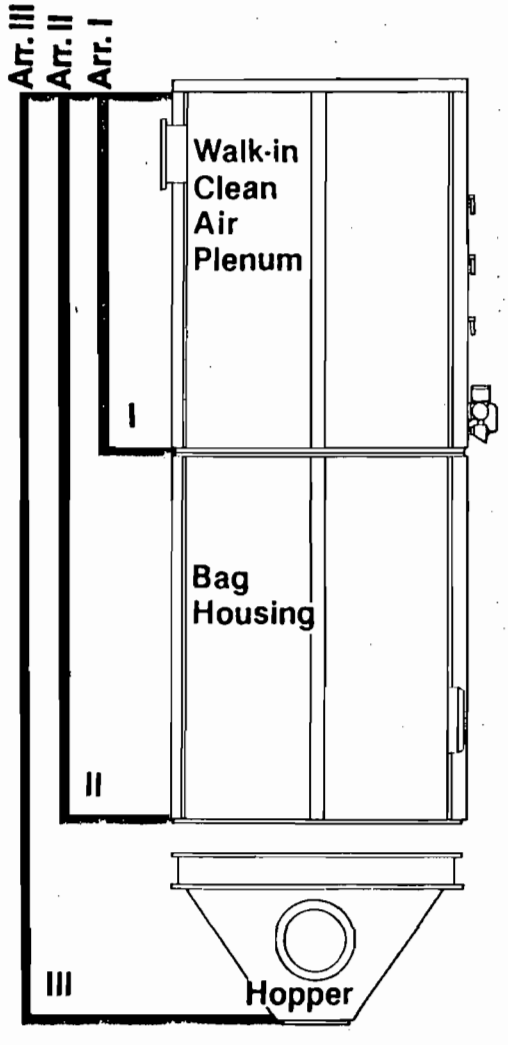
III. Clean air plenum, bag cleaning mechanism, baghouse, and hopper with dusty air inlet and flanged dust outlet. Unit functions as complete dust collector.

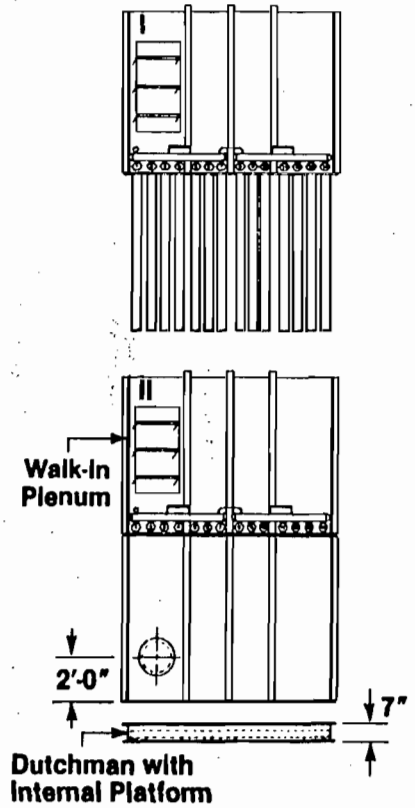
Capabilities

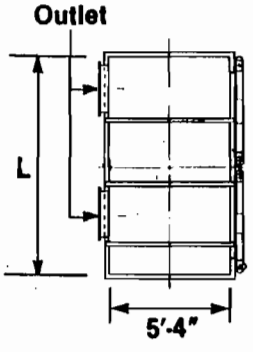
The WR Series is only one of the highly efficient lines of pollution control equipment manufactured by Flex-Kleen Corporation. As specialists in the field of pollution control, Flex-Kleen has been helping to solve dust control problems for over 20 years. Result? Whatever Flex-Kleen dust collectors we supply – from simple bin vents to sophisticated baghouses - you can be sure they all work without frequent adjustment, attention or problems. For at Flex-Kleen, we specialize in "taking the nuisance out of dust control."

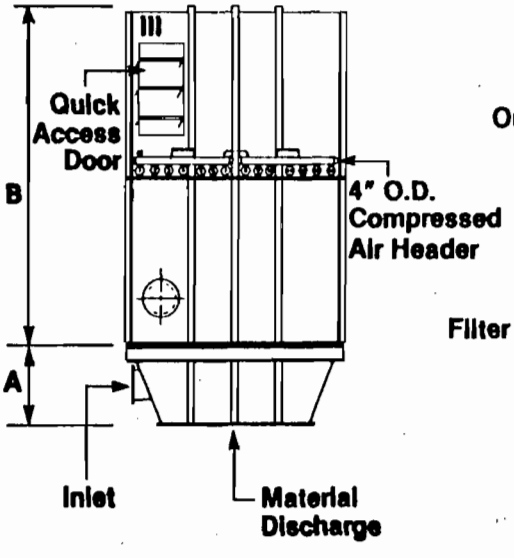
Equipment Specifications

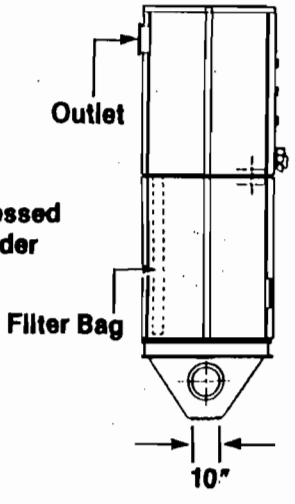
WRWS-112 Shown





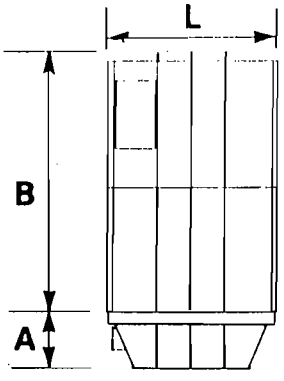






The WR Series...
taking the nuisance out of dust control in large bins and product recovery systems.

Ordering Information - WR Series (WRWS Model)



Select from a wide range of models... all designed to solve your dust control problems. With a wide range of sizes available, it's easy to match the collector size to *your* application.

Custom WR
Custom collectors, available in the sizes shown on the chart, can be modified and manufactured to meet exacting customer requirements (for hazardous service, sanitary applications, height limitations, etc.).

Stock WR
The standard line is designed with features required to meet most dust control applications. Stocking of these standardized components permits fast delivery, and lower cost.

Model No. Top Bag Removal	Filter Area (Sq. Ft.)	Comp Air Req'd. (SCFM)	L	B	A
					Pyramid Hopper
84-WRWS-48	509	9.5	4'-0"	14'-9½"	4'-3"
100-WRWS-48	610	9.5	4'-0"	17'-5½"	4'-3"
84-WRWS-64	678	11.3	5'-4"	14'-9½"	4'-3"
100-WRWS-64	813	11.3	5'-4"	17'-5½"	4'-3"
84-WRWS-80	848	13.5	6'-8"	14'-9½"	5'-5"
100-WRWS-80	1016	13.5	6'-8"	17'-5½"	5'-5"
84-WRWS-96	1018	15.0	8'-0"	14'-9½"	6'-6"
100-WRWS-96	1219	15.0	8'-0"	17'-5½"	6'-6"
					Trough Hopper
84-WRWS-112	1187	16.4	9'-4"	14'-9½"	3'-11"
100-WRWS-112	1422	16.4	9'-4"	17'-5½"	3'-11"
84-WRWS-128	1357	18.7	10'-8"	14'-9½"	3'-11"
100-WRWS-128	1626	18.7	10'-8"	17'-5½"	3'-11"
84-WRWS-144	1526	21.0	12'-0"	14'-9½"	3'-11"
100-WRWS-144	1829	21.0	12'-0"	17'-5½"	3'-11"
84-WRWS-160	1696	23.4	13'-4"	14'-9½"	3'-11"
100-WRWS-160	2032	23.4	13'-4"	17'-5½"	3'-11"
84-WRWS-176	1866	25.7	14'-8"	14'-9½"	3'-11"
100-WRWS-176	2235	25.7	14'-8"	17'-5½"	3'-11"
84-WRWS-192	2035	28.0	16'-0"	14'-9½"	3'-11"
100-WRWS-192	2438	28.0	16'-0"	17'-5½"	3'-11"

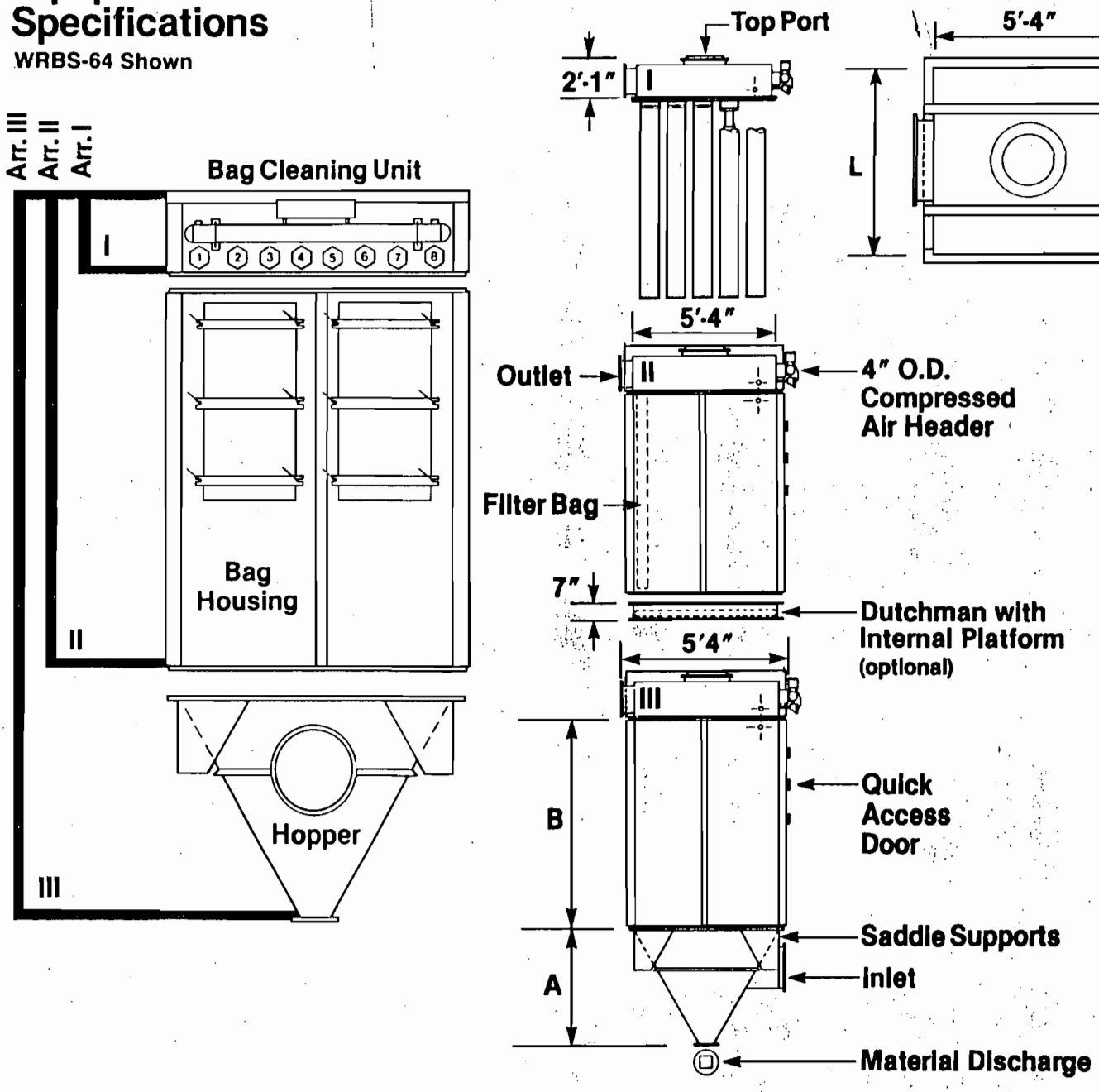
WR Series

WRBS - WRB stock unit, bottom bag removal
WRBC - Stock unit modified for special requirements; bottom bag removal
WRTS - Top bag removal with lift-off roof doors
WRWS - Top bag removal with walk-in plenum

Ask your Flex-Kleen representative about the WR Series of welded dust collectors — let Flex-Kleen help you take the nuisance out of dust control in product recovery and large bin areas. For additional information, please call our sales manager at (312) 648-5371.

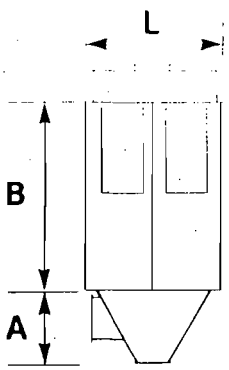
Equipment Specifications

WRBS-64 Shown



The WR Series...
taking the nuisance out of dust control in large bins and product recovery systems.

Ordering Information - WR Series (WRBS Model)



Select from a wide range of models... all designed to solve your dust control problems. With a wide range of sizes available, it's easy to match the collector size to *your* application.

Custom WR

Custom collectors, available in the sizes shown on the chart, can be modified and manufactured to meet exacting customer requirements (for hazardous service, sanitary applications, height limitations, etc.).

Stock WR

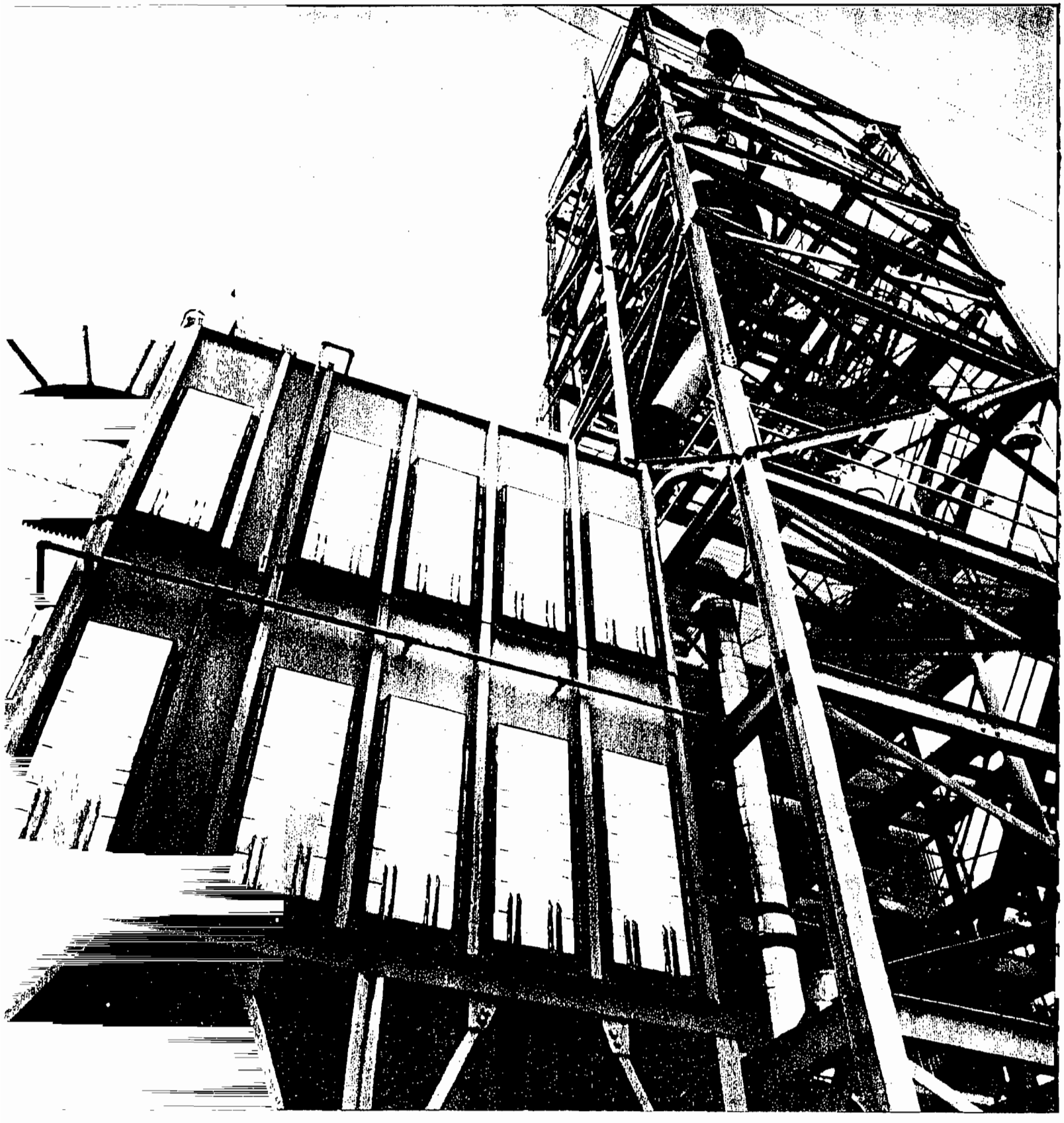
The standard line is designed with features required to meet most dust control applications. Stocking of these standardized components permits fast delivery, and lower cost.

Model No. Bottom Bag Removal	Filter Area (Sq. Ft.)	Comp Air Req'd. (SCFM)	L	B	A
					Pyramid Hopper
84-WRBS-48	509	9.5	4'-0"	7'-3"	4'-3"
100-WRBS-48	610	9.5	4'-0"	8'-7"	4'-3"
84-WRBS-64	678	11.3	5'-4"	7'-3"	4'-3"
100-WRBS-64	813	11.3	5'-4"	8'-7"	4'-3"
84-WRBS-80	848	13.5	6'-8"	7'-3"	5'-5"
100-WRBS-80	1016	13.5	6'-8"	8'-7"	5'-5"
84-WRBS-96	1018	15.0	8'-0"	7'-3"	6'-6"
100-WRBS-96	1219	15.0	8'-0"	8'-7"	6'-6"
					Trough Hopper
84-WRBS-112	1187	16.4	9'-4"	7'-3"	3'-11"
100-WRBS-112	1422	16.4	9'-4"	8'-7"	3'-11"
84-WRBS-128	1357	18.7	10'-8"	7'-3"	3'-11"
100-WRBS-128	1626	18.7	10'-8"	8'-7"	3'-11"
84-WRBS-144	1526	21.0	12'-0"	7'-3"	3'-11"
100-WRBS-144	1829	21.0	12'-0"	8'-7"	3'-11"
84-WRBS-160	1696	23.4	13'-4"	7'-3"	3'-11"
100-WRBS-160	2032	23.4	13'-4"	8'-7"	3'-11"
84-WRBS-176	1866	25.7	14'-8"	7'-3"	3'-11"
100-WRBS-176	2235	25.7	14'-8"	8'-7"	3'-11"
84-WRBS-192	2035	28.0	16'-0"	7'-3"	3'-11"
100-WRBS-192	2438	28.0	16'-0"	8'-7"	3'-11"

WR Series

WRBS - WRB stock unit, bottom bag removal
WRBC - Stock unit modified for special requirements; bottom bag removal
WRTS - Top bag removal with lift-off roof doors
WRWS - Top bag removal with walk-in plenum

Ask your Flex-Kleen representative about the WR Series of welded dust collectors — let Flex-Kleen help you take the nuisance out of dust control in product recovery and large bin areas. For additional information, please call our sales manager at (312) 648-5371.

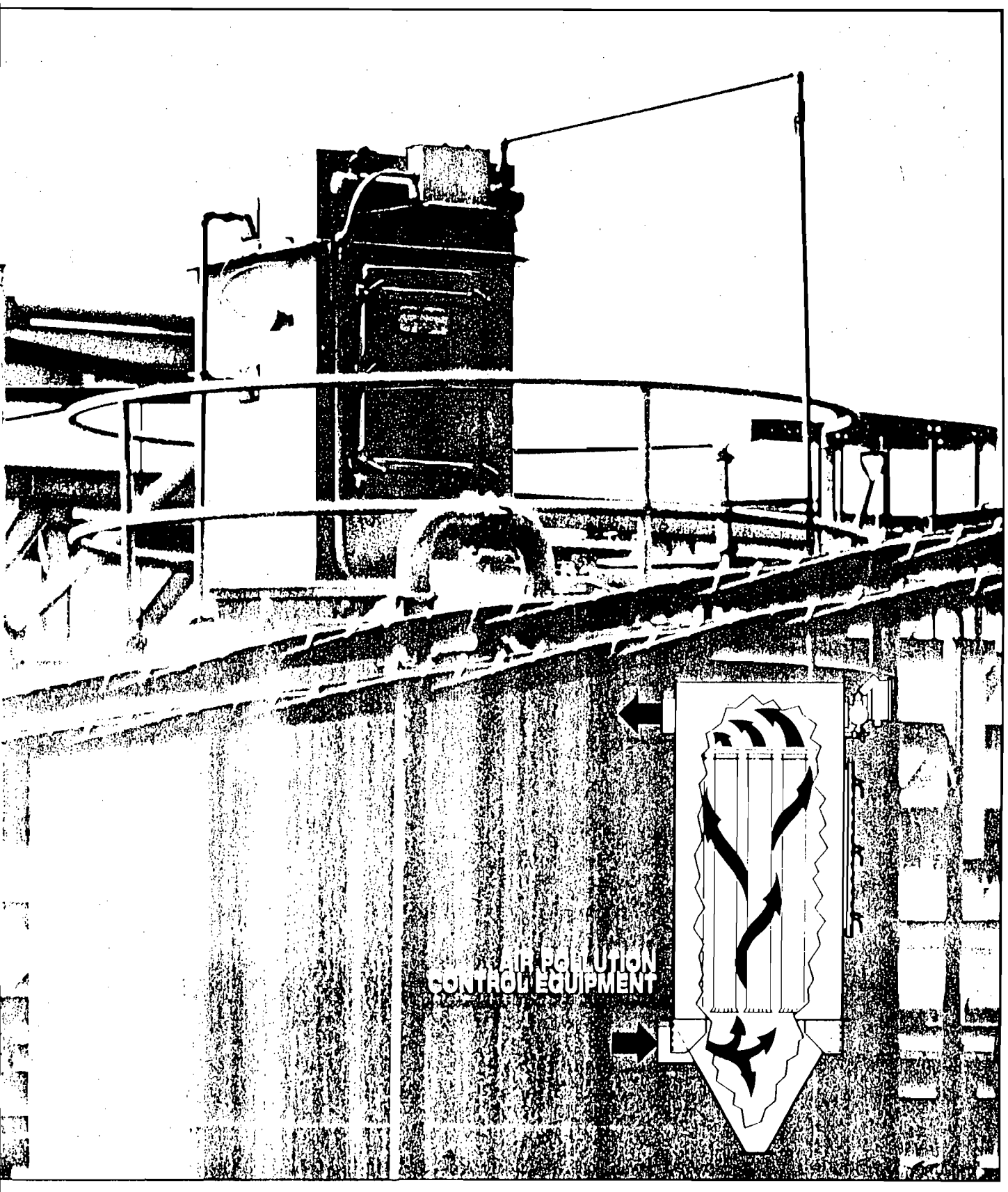


130-16-0008B • 5M 10/81 • Printed in U.S.A.

SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 5A

Storage Silo No. 5
Bin Vent Dust Collection System

BV Series...pulse jet bin vents/dust collectors



Flex-Kleen
Research-Cottrell

BV Series, solving dust control problems in bins and silos

Capabilities—Over 99% efficiency.

The BV Series is only one of the highly efficient lines of pollution control equipment manufactured by Flex-Kleen Corporation. As specialists in the field of pollution control, Flex-Kleen has been helping to solve dust control problems for over 20 years. Result? Whatever Flex-Kleen dust collectors we supply—from simple bin vents to sophisticated baghouses—you can be sure they all work without frequent adjustment, attention, or problems. For at Flex-Kleen, we specialize in "taking the nuisance out of dust control."

Advantages.

The BV Series of bin vents/dust collectors offers:

High efficiency—BV units remove over 99% of dust particles from the air.

Lower cost—Compact BV units are designed for higher air-to-cloth ratios. You get more performance from a smaller piece of equipment. Lower initial cost. Less maintenance cost.

Easy installation—Welded, assembled housing is shipped ready to set in place. No field assembly required.

Minimum maintenance—No moving parts inside baghouse. Solid-state timer and small air valves are *outside* the unit—easily accessible for routine inspection.

Design engineered—BV Series of bin vents/dust collectors is specifically designed to solve dusting problems in bins and silos—engineered for maximum performance under these conditions.

Characteristics.

BV bin vents/dust collectors feature a low pressure housing design, geared for lighter dust loads, handling air volumes in the range of 500 to 2500 CFM.

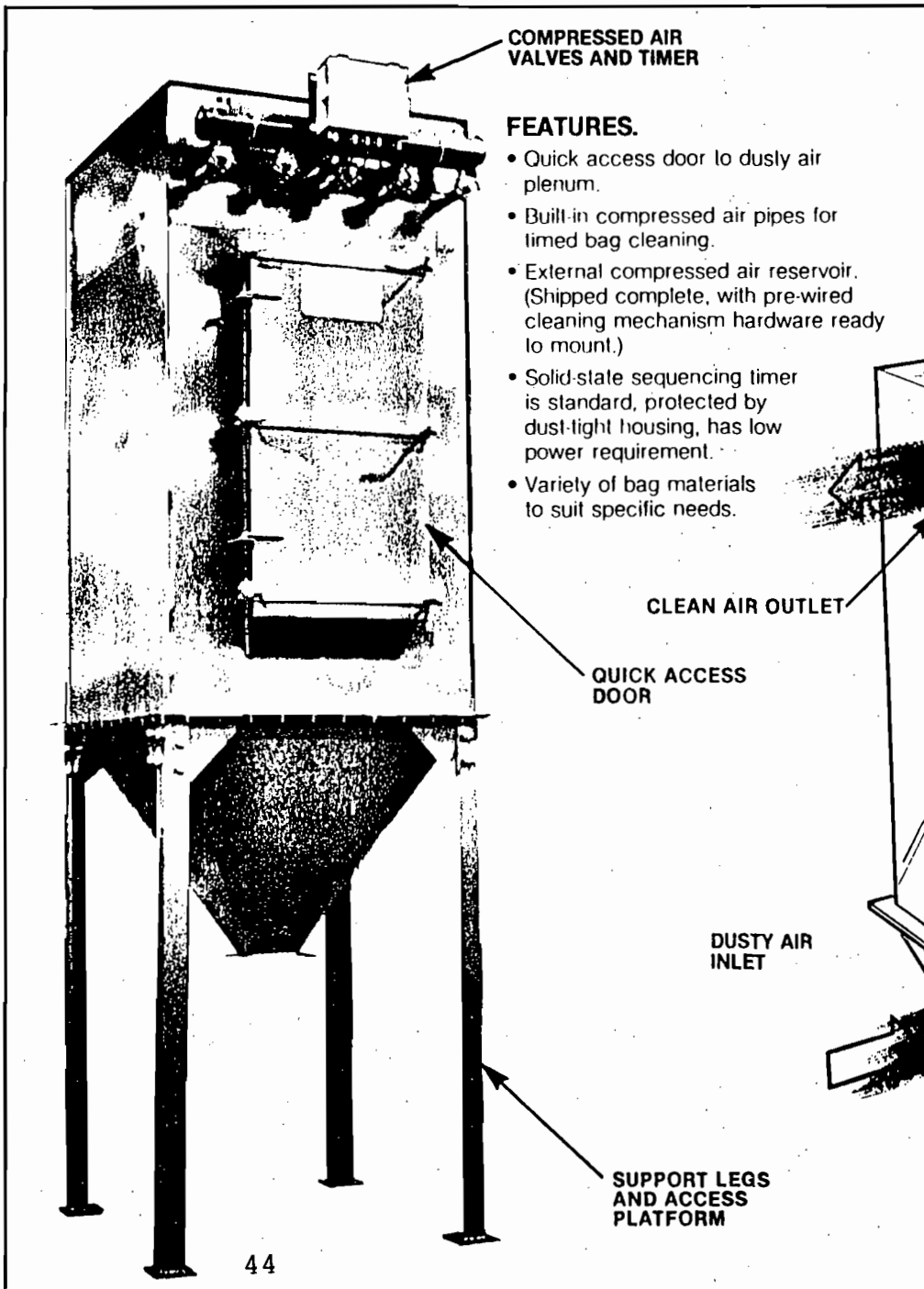
Continuous automatic cleaning by pulse jets is standard.

BV units are square units ranging in size from 17 sq. ft. of cloth in a 2 ft. sq. housing, up to 457 sq. ft. of cloth in a 4 ft. square housing.

Arrangements.

BV units can be purchased in three basic arrangements, to satisfy specific user requirements.

ARR I — Bag cleaning mechanism, welded to flanged tube-



sheet for mounting in customer's bin or silo. Unit functions as a bin/silo vent without a hopper or housing.

ARR II — Bag cleaning mechanism, tubesheet and bag housing, flanged for mounting on user's equipment.

ARR III — Bag cleaning mechanism, tubesheet, baghousing and pyramid hopper with dusty air inlet and flanged dust outlet. Unit functions as complete dust collector.

Operation.

BV units are commonly mounted on a flanged opening at the top of the user's existing bin or silo (ARR II). They can also be purchased with accompanying bag housing and pyramid hopper (ARR III). Method of operation remains basically the same, regardless of the arrangement.

(1.) Dust-laden air slows down as it enters the hopper or silo. Heavier dust particles drop out.

(2.) The air continues to rise, carrying the finer particles into the bag area.

(3.) As the air passes through the bags, dust is captured and collected on the bag exterior.

(4.) The cleaned air passes up inside the bag into the clean air plenum then is vented into the atmosphere or back to the process.

Pulse jet bag cleaning.

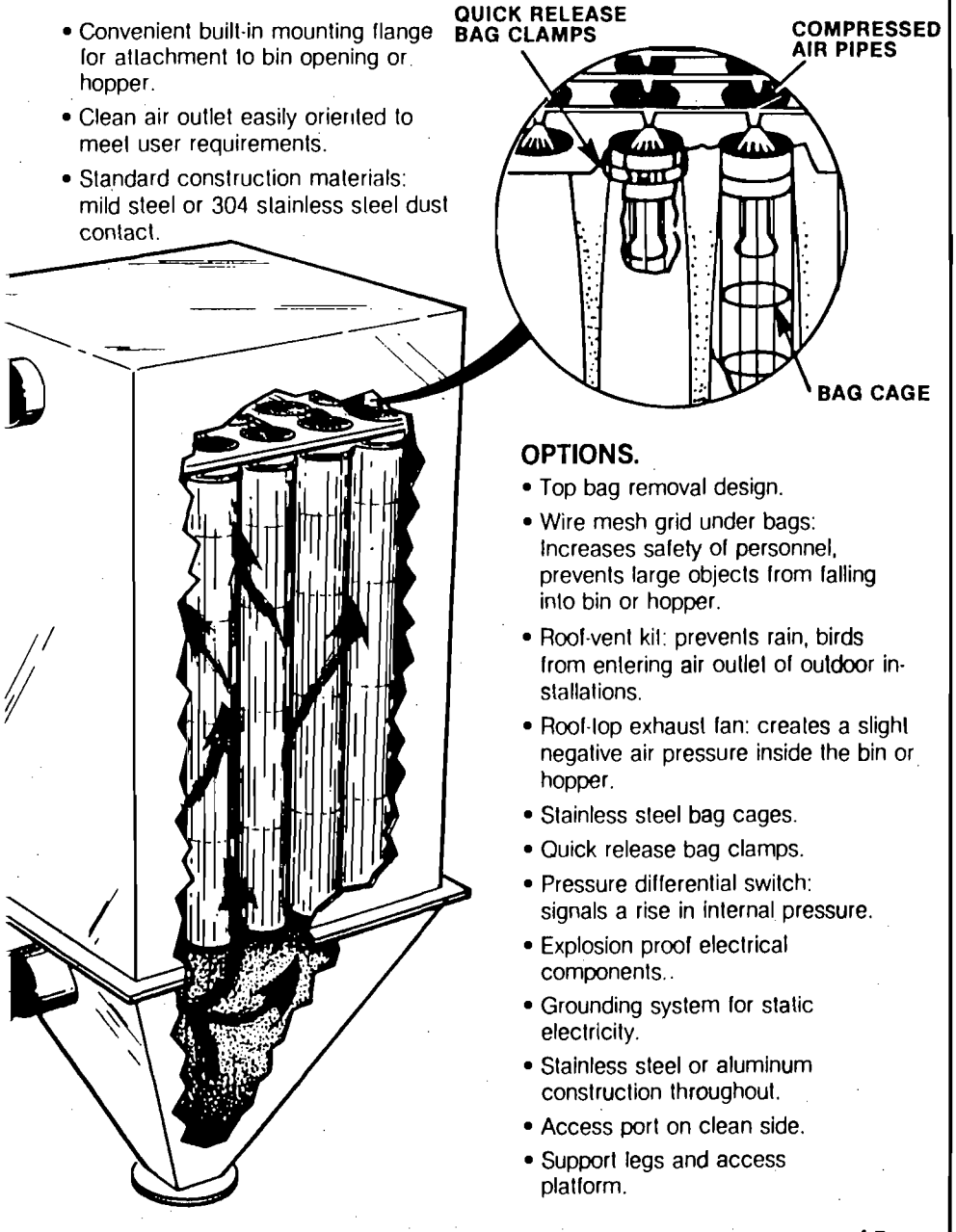
A pneumatic pulse jet system provides continuous, automatic bag cleaning.

On a timed cycle, a burst of compressed air is directed down through a venturi at the top of the bag. This induces clean air into the bag, setting up a pneumatic shockwave inside it.

The airflow through the bag is momentarily stopped, the bag is firmly flexed, causing the accumulated dust particles to drop off of the bag into the silo or collector hopper.

Since only one row of bags is cleaned at a time there is no interruption of air flow through the filter. This provides a smooth operating dust control or material handling system.

- Convenient built-in mounting flange for attachment to bin opening or hopper.
- Clean air outlet easily oriented to meet user requirements.
- Standard construction materials: mild steel or 304 stainless steel dust contact.



OPTIONS.

- Top bag removal design.
- Wire mesh grid under bags: Increases safety of personnel, prevents large objects from falling into bin or hopper.
- Roof-vent kit: prevents rain, birds from entering air outlet of outdoor installations.
- Roof-top exhaust fan: creates a slight negative air pressure inside the bin or hopper.
- Stainless steel bag cages.
- Quick release bag clamps.
- Pressure differential switch: signals a rise in internal pressure.
- Explosion proof electrical components.
- Grounding system for static electricity.
- Stainless steel or aluminum construction throughout.
- Access port on clean side.
- Support legs and access platform.

BV Series — Ordering information

Select from a wide range of models...all designed to solve the dust control problems in your bins or silos. With the range of sizes available, it's easy to match the collector size to *your* application.

Stock BV

In situations where speedy delivery is important, standard BV collectors are in stock for prompt shipment—and are offered at substantial savings.

Sanitary BV

A sanitary BV unit is also available, for food handling and other users requiring sanitary-type construction.

BV Series

BVBS—BVB stock unit, with bottom bag removal.

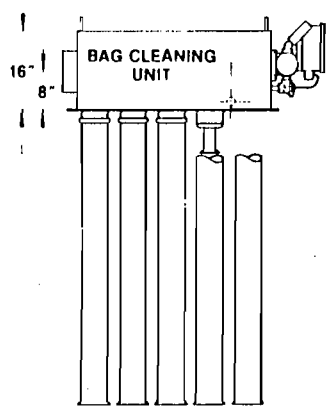
BVBC—Modified stock unit for special requirements.

BVTC—Top bag removal.

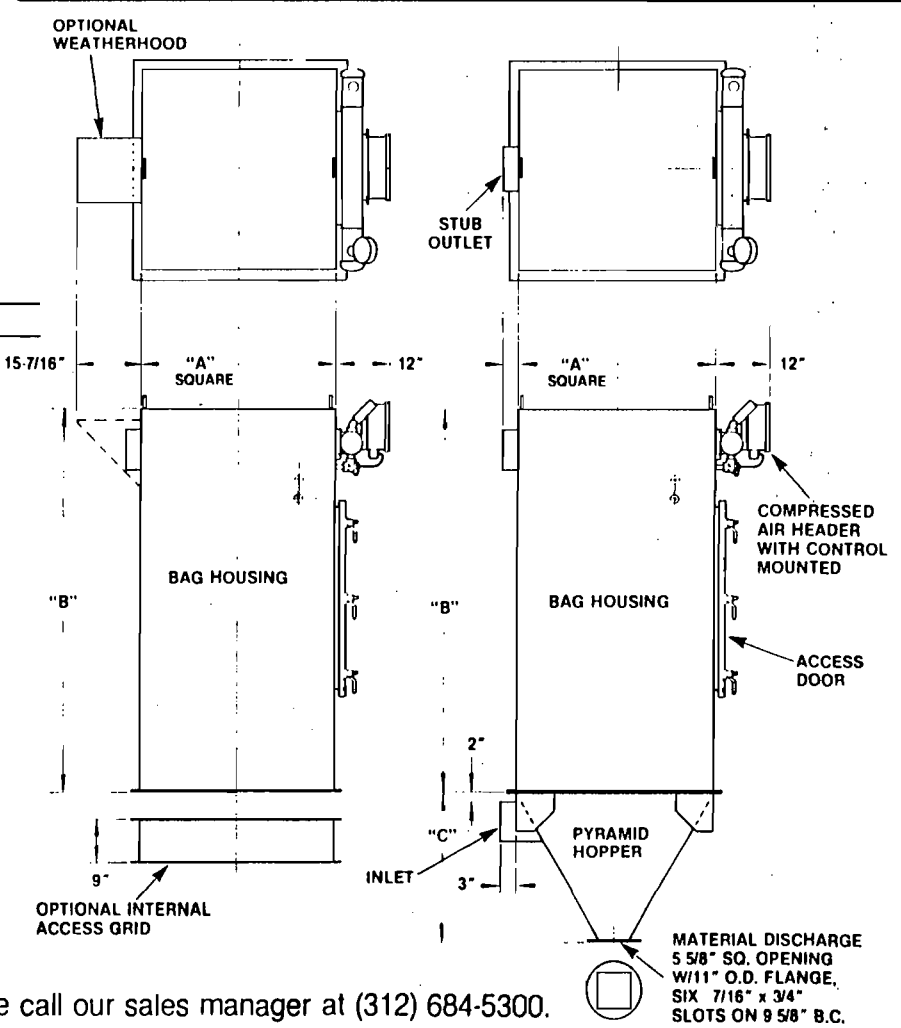
BVWC—Top bag removal with walk-in plenum.

Model No.	Filter Area (Sq. Ft.)	Comp. Air Req'd (SCFM)	"A"	"B"	"C"
18-BVB-9	17	4.0	2'0"	3'0"	1'4"
36-BVB-9	39	4.2	2'0"	4'6"	1'4"
58-BVB-9	65	4.5	2'0"	6'4"	1'4"
84-BVB-9	95	5.0	2'0"	8'7"	1'4"
18-BVB-16	30	5.2	2'8"	3'0"	1'11"
36-BVB-16	69	5.5	2'8"	4'6"	1'11"
58-BVB-16	115	5.8	2'8"	6'4"	1'11"
84-BVB-16	170	6.2	2'8"	8'7"	1'11"
18-BVB-25	47	6.3	3'4"	3'0"	2'6"
36-BVB-25	107	6.5	3'4"	4'6"	2'6"
58-BVB-25	180	6.7	3'4"	6'4"	2'6"
84-BVB-25	265	7.0	3'4"	8'7"	2'6"
100-BVB-25	318	7.5	3'4"	9'11"	2'6"
36-BVB-36	155	7.5	4'0"	4'6"	3'1"
58-BVB-36	260	8.0	4'0"	6'4"	3'1"
84-BVB-36	382	8.5	4'0"	8'7"	3'1"
100-BVB-36	457	9.0	4'0"	9'11"	3'1"

ARR I — BAG CLEANING UNIT



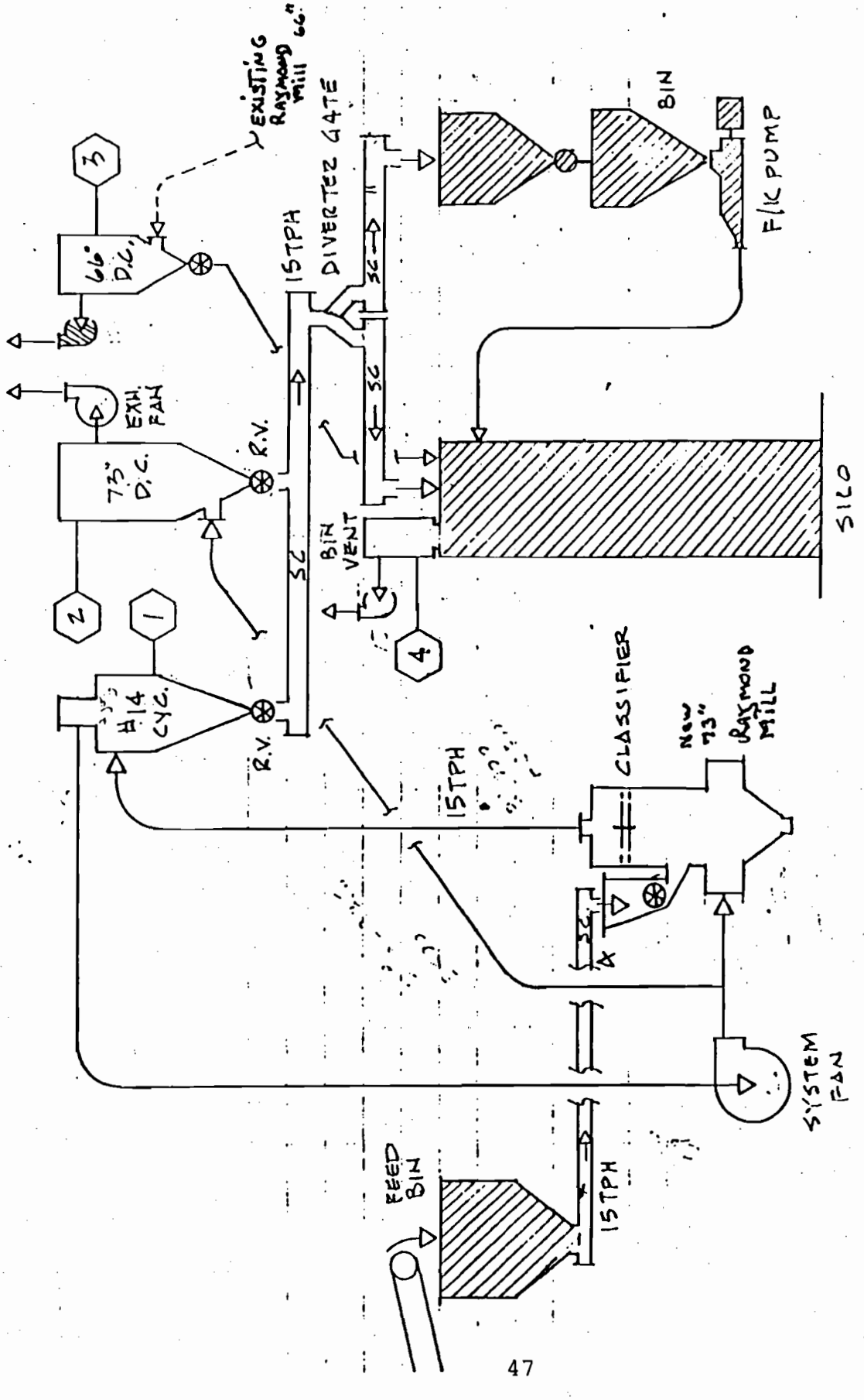
ARR II —, + BAG HOUSING **ARR III —, + HOUSING & HOPPER**

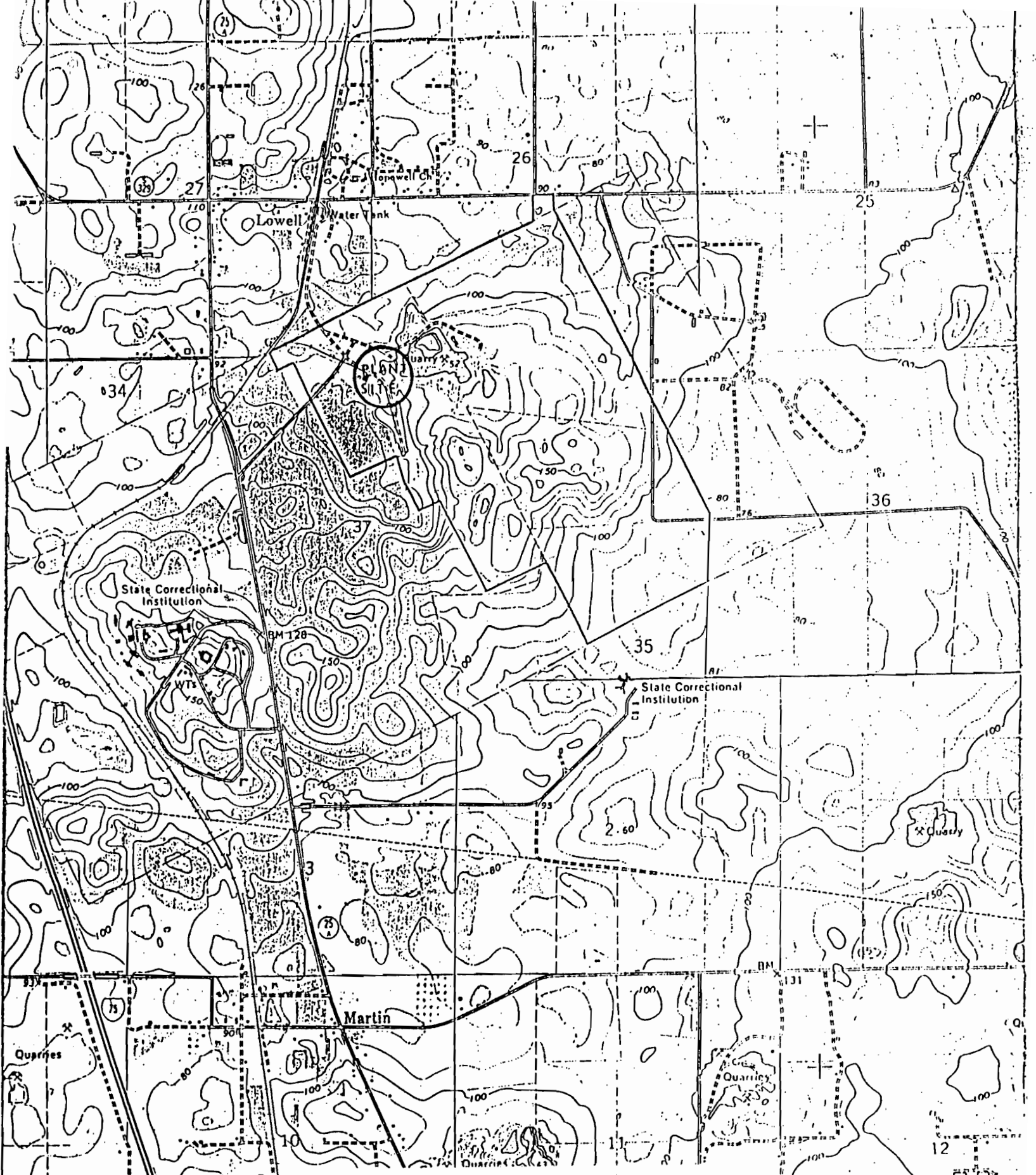


Ask your Flex-Kleen representative about the BV Series of bin vents/dust collectors—let Flex-Kleen help you take the nuisance out of dust control in your bins and silos. For additional information, please call our sales manager at (312) 684-5300.

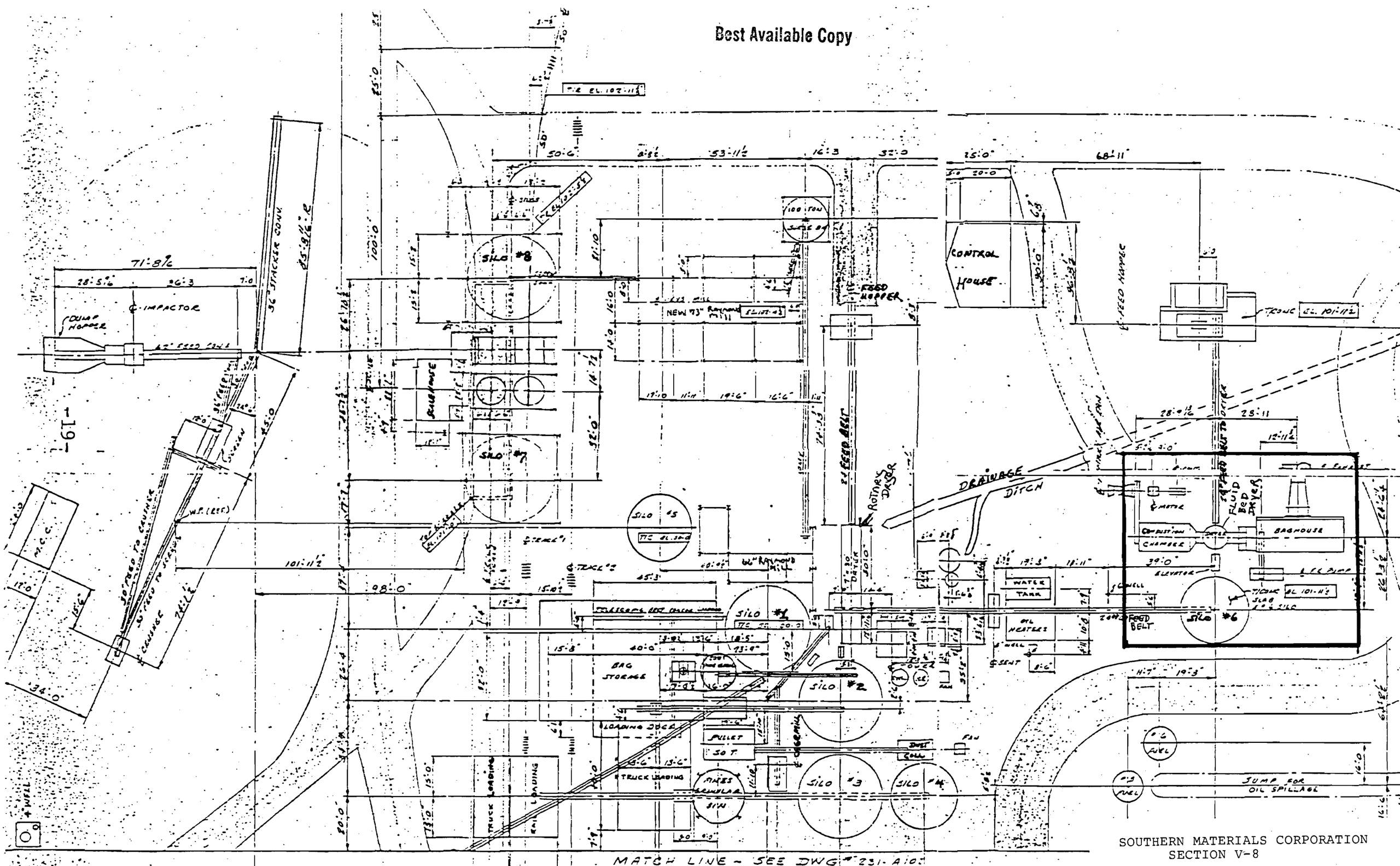
SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 6

Flow Diagram
PROPOSED SYSTEM





Section V-7
Southern Materials Corporation
Site Location (U.S.G.S.) Map

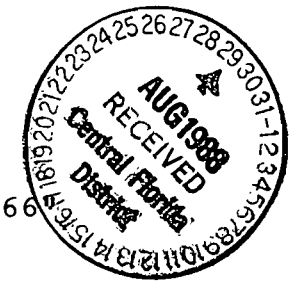


SOUTHERN MATERIALS CORPORATION
SECTION V-8

CROSS/TESSITORE & ASSOCIATES, P.A.
4763 S. CONWAY ROAD
BOX 12, SUITE F
ORLANDO, FLORIDA 32812
305/851-1484

RECEIVED
SEP 1 1988
DER - BAQM

August 26, 1988



Mr. Charles M. Collins, P.E.
Supervisor, Air Engineering
FDER-Central Florida District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Subject: Permit No. A042-120355 Raymond Mill 66
Southern Materials Corporation
C/TA #S02.390

Dear Mr. Collins:

Please find enclosed:

1) An application for a proposed modification to the subject source permit. The present dust collection system will be replaced by a Model 100 WRBS-48 Arrangement III Flex Kleen Dust Collector. A Model 100 BVBS-25 Arrangement II G Flex Kleen Bin Vent will also be installed on the No. 5 silo.

2) A check in the amount of $100.00 made payable to the FDER for the construction application processing fee.

The installation of these dust collection systems will result in full compliance with the FDER regulations.

If you should have any questions, please do not hesitate to call me.

Sincerely,

Gregory R. Gonzales
Environmental Specialist

GG:kbw
Enc:a/s
cc: Bill Haughton-Southern Materials Corporation
C0312

APPLICATION TRACKING SYSTEM 08/29/88

APPL NO:153995
APPL RECVD:08/29/88 TYPE CODE:AC SUBCODE:05 LAST UPDATE:08/29/88
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:BAQ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:~~J TURNER~~ B. Thomas
APPL STATUS:AC DATE:08/29/88 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:42
(Y/N) N DNR REVIEW REQD? LAT/LONG:29.19.20/82.11.22
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:__________
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-__________

PROJECT SOURCE NAME:SOUTHERN MATERIALS/66" RAYMOND MILL
STREET:RTE C25A CITY:LOWELL
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:KEEVER, MEL
STREET:POST OFFICE DRAWER 1209 CITY:ANTHONY
STATE:FL ZIP:32617 PHONE:904-629-9715
AGENT NAME:CROSS/TESSITORE & ASSOCIATES, P.A.
STREET:4763 SOUTH CONWAY ROAD, STE F CITY:ORLANDO
STATE:FL ZIP:32812 PHONE:305-851-1484
FEE #1 DATE PAID:08/29/88 AMOUNT PAID:00100 RECEIPT NUMBER:00125290

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - __/__/__
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - __/__/__--__/__/__
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -. __/__/__
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
F DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS - - __/__/__
G DATE FIELD REPORT WAS REQ--REC - - - - - - - - - - - - - __/__/__--__/__/__
H DATE DNR REVIEW WAS COMPLETED - - - - - - - - - - - - - __/__/__

I DATE APPLICATION WAS COMPLETE - - - - - - - - - - - - - __/__/__
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - __/__/__
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - __/__/__--__/__/__
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - - - - __/__/__
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - __/__/__
N WAIVER DATE BEGIN--END (DAY 90) - - - - - - - - - - - - __/__/__--__/__/__

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 125290

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Southern Materials Corp Date Aug 31 1956

Address PO Box 1209 Anthony Tx 79017 Dollars $ 100.00

Applicant Name & Address

Source of Revenue 66" Raymond Mill

Revenue Code 001031 ck 13604 Application Number AC43 153445

By [signature]

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

RECEIVED SEP 1 1988 DER - BAQM

PAID 100 AUG 29 1988 CENTRAL FLORIDA DISTRICT

AC 42-153995

BOB GRAHAM GOVERNOR

VICTORIA J. TSCHINKEL SECRETARY

ROY DUKE DISTRICT MANAGER

RECEIVED AUG 1988 Central Florida District

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Calcium Carbonate Rock Processing [ ] New[1] [X] Existing[1]

APPLICATION TYPE: [ ] Construction [ ] Operation [X] Modification

COMPANY NAME: Southern Materials Corporation COUNTY: Marion

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Existing 66" Raymond Mill with Fabric Filter

SOURCE LOCATION: Street RTE C 25A City Lowell

UTM: East 17-384.4 North 3244

Latitude 29 ° 19 ' 20 "N Longitude 82 ° 11 ' 22 "W

APPLICANT NAME AND TITLE: Mel Keever, President

APPLICANT ADDRESS: P.O. Drawer 1209; Anthony, Florida 32617

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Southern Materials Corp.

I certify that the statements made in this application for a Modification to an Existing Operational permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Mel Keever

Mel Keever, President
Name and Title (Please Type)

Date: 8-25-88 Telephone No. (904) 629-7997

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Joseph L. Tessitore

Joseph L. Tessitore, P.E., Vice President
Name (Please Type)

Cross/Tessitore & Associates, P.A.
Company Name (Please Type)

4763 S. Conway Road, Suite F
Orlando, Florida 32812
Mailing Address (Please Type)

Florida Registration No. 23374 Date: 8-26-88 Telephone No. 407-851-1484

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

This project involves the installation of a Model 100 WRBS-48 Flex Kleen Baghouse to replace the existing Ray Jet Model 6MC-10 baghouse on the existing 12 ton/hour 66" Raymond Mill, (the No. 5 storage silo emissions control installation information is addressed in a separate application with a proposed additional new 77" Raymond Mill); for controlling particulate emissions from the calcium carbonate process. The installation will result in full compliance with the FDER regulations as the unit is rated at + 99% collection efficiency. See process description Section II A.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction August 1988 Completion of Construction December 1988

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

$40,000.00 for: Model 100 WRBS-48 Flex Kleen Dust Collector

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and exoiration dates.

Permit No. A042-12035

Issued Date - July 31, 1986

Expiration Date - August 8, 1991

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? NO

   a. If yes, has "offset" been applied? N/A

   b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A

   c. If yes, list non-attainment pollutants. N/A

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? N/A

   a. If yes, for what pollutants? N/A

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

For the 66" Raymond Mill

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	100	24,000	Section V Item 6

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 24,000

2. Product Weight (lbs/hr): 23,999.3

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	0.72	3.15	17-2.610(1)(b)	16.80	72.00	314.50	Section V Item 6
from 66"							
Raymond Mill							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)
For Storage Silo No. 5 when used with the 66" Raymond Mill

. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	100	23,999.3	Section V Item 6

. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 23,999.3

2. Product Weight (lbs/hr): 23,999

. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.24	1.05	17-2.610(1)(b)	16.80	23.99	104.8	Section V Item 6
from storage Silo #5							
When using							
66" Raymond Mill							

See Section V, Item 2.

[1]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)
For Storage Silo No. 5 when used with both the 66" & 73" Raymond Mills.

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Limestone	Particulate	100	23,999.3	Section V Item 6
			From 66" Mill	
Limestone			29,999.1	" "
			From 73" Mill	

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 53,998.4

2. Product Weight (lbs/hr): 53,997.9

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	0.54	2.36	17-2.610(1)(b)	27.7	53.96	235.7	Section V Item 6
From Storage Silo No.5 when							
used with both the 66" & 73"							
Raymond Mills							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
66" Raymond Mill Model 100 WRBS-48				
Arrangement III Flex Kleen Dust Collector	Particulate	99.9%		Section V Item 5
Model 100 BVBS Bin				
Vent Collector For	Particulate	99.9%		Section V
No. 5 Silo				Item 5A

E. Fuels N/A

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: N/A

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum N/A

G. Indicate liquid or solid wastes generated and method of disposal.

N/A

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 98 ft. Stack Diameter: 1.25 ft.

Gas Flow Rate: 2800 ACFM --- DSCFM Gas Exit Temperature: 70 °F.

Water Vapor Content: Ambient % Velocity: 38.9 FPS

See Calculation Sheet

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Storage Silo No. 5
on Model 100 BVB-25 Bin Vent

1. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 98 ft. Stack Diameter: 0.6 ft.

Gas Flow Rate: 1500 ACFM -- DSCFM Gas Exit Temperature: 70 °F.

Water Vapor Content: Ambient % Velocity: 71.8 FPS

See Calculation Sheet Section A

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

DER Form 17-1.202(1)
Effective November 30, 1982

Brief description of operating characteristics of control devices: N/A

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

N/A

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N/A

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

Attach all other information supportive to the PSD review.

Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

SOUTHERN MATERIALS CORPORATION

SECTION II A

SMC - Raymond Mill Circuit Description

Raymond Mill 66"

Granular material (limestone) stored in the feed bin is fed at a controlled rate into the Raymond roller mill in conjunction with air being recirculated through the mill by the main fan. As the material is milled, the fine particles are swept into the airstream and lifted to the top of the mill where a mechanical separator (whizzer) allows only the finer particles to pass, while the coarser material is returned for further milling. The finer particles are then collected by a cyclone for storage in the product silo (#5). The "dedusted" airstream is then returned to the mill via the main fan.

A certain amount of air is continuously exhausted from the recirculating "closed circuit" airstream and is processed through a baghouse for emission control. Material collected by the baghouse also reports to #5 silo.*

The bulk storage silo also may receive product form a Fuller-Kinyon air conveying line. Therefore, the silo will have a proposed bin vent installed to capture any dust that might otherwise be vented to atmosphere during operation of the F-K system.**

A proposed 73" roller Raymond Mill also discharges a similar product into the bulk storage silo from its cyclone and dust collector system.***

* Point 3 on Section V; Item 6; Flow Diagram
** Point 4 on Section V; Item 6; Flow Diagram
*** Point 2 on Section V; Item 6; Flow Diagram

SECTION V: Existing 66" Raymond Mill Calculations on Model 100 WRBS-48 Dust Collector

SUPPLEMENTAL REQUIREMENTS

1) Process Input Rate = 12 tons/hr

Operation time 24 hr/day, 7 day/week,

52 weeks/yr

process input rate =

12 tons/hr x 2000 lb/ton = 24,000 lbs/hr

Product Weight = process input - actual emissions

= 24000 lb/hr - .72 lb/hr

= 23,999.3 lb/hr

= 23999.3 lb/hr x 1 ton/2000 lbs

= 11.99 tons/hr

EMISSIONS ESTIMATES:

2) Actual Emissions:

The baghouse efficiency is plus 99 percent

Actual Emission = Potential (1-.99)

= 72 lb/hr (1-.99)

= .72 lb/hr = 3.15 tons/yr

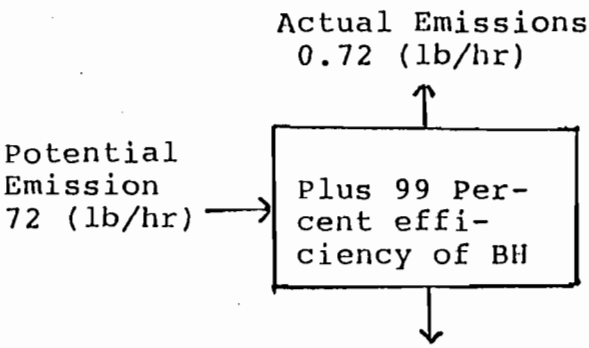
3) Emission Estimate:

Potential Emissions: (Uncontrolled Emissions)
From Page 22
12 ton/hr x 6 lb/ton = 72 lb/hr

72 lb/hr x 1 ton/2000 lb x 24 hr/day x

7 day/wk x 52 wks/yr = 314.5 tons/yr

Collected Emissions:



Collected Emissions = Potential - Actual

= 72 lb/hr - .72 (lb/hr)

= 71.3 (lb/hr)

Allowable Emissions

$E = 3.59\ P^{.62}$

Process Weight = P = 12 tons/hr

$E = 3.59\ (12)^{.62}$

= 16.8 lb/hr

4) Air to Cloth Ratio: Existing 66" Raymond Mill

Flex-Kleen Arrangement III Model 100 WRBS-48 Dust Collector

48 bags (Fabric Filters)

Dimension of the bags:

Height = 100"

The cloth area = 610 ft^2

System flow rate 2800 CFM

Air/Cloth = 2800 CFM x $\frac{1}{610\ ft^2}$ = 4.59 ft/min.

Air/Cloth Ratio = 4.59/1

Stack: Diameter 1.25 ft = 15 inch

Area = 1.2 ft^2

Velocity = 2800 CFM/(1.2 ft^2 x 60 sec/min)

Velocity = 38.9 ft/sec

Gas Flow Rate = 2800 CFM @ 70°F

SECTION V: Calculations When Using the 66" Raymond Mill on Storage Silo No. 5 on Model 100 BVBS-25 Bin Vent

SUPPLEMENTAL REQUIREMENTS

1)A Process Input Rate = 11.99 tons/hr

Operation time 24 hr/day, 7 day/week,

52 weeks/yr

Process input rate =

11.99 tons/hr x 2000 lb/ton = 23,999.3 lbs/hr

Product Weight = Process Input - Actual Emissions

= 23,999.3 lb/hr - 0.24 lb/hr

= 23,999.06 lb/hr

= 23,999.06 lb/hr x 1 ton/2000 lbs

= 11.99 tons/hr

EMISSIONS ESTIMATES:

2)A Actual Emissions

The baghouse efficiency is plus 99 percent

Actual Emission = Potential (1-.99)

= 23.99 lb/hr (1-.99)

= 0.24 lb/hr = 1.05 tons/yr

Storage Silo No. 5

Calculations on Model 100 BVBS-25 Bin Vent
When Using 66" Raymond Mill

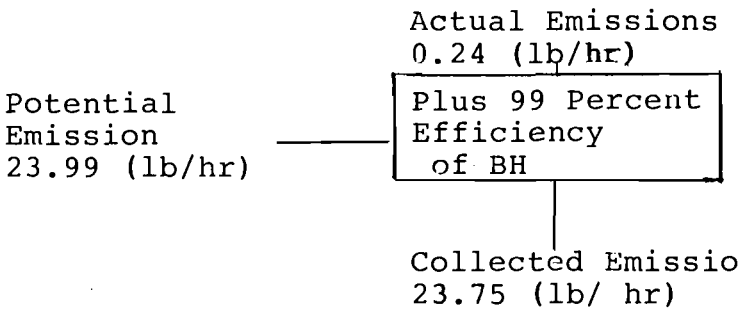
3)A Emission Estimate:

Potential Emissions: (Uncontrolled Emissions)

From Page 22
11.99 ton/hr x 2 lb/ton = 23.99 lb/hr

23.99 lb/hr x 1 ton/2000 lb x 24 hr/day x
7 day/wk x 52 wks/yr = 104.8 tons/yr

Emissions:



Collected Emissions = Potential - Actual
= 23.99 lb/hr - 0.24 (lb/hr)
= 23.75 (lb/hr)

Allowable Emissions

$E = 3.59\ p^{.62}$

Process Weight = P = 12 tons/hr

$E = 3.59\ (11.99)^{.62}$

= 16.8 lb/hr

4)A Air to Cloth Ratio: Storage Silo No. 5

Flex Kleen Model 100 BVBS-25 Bin Vent

25 bags (Fabric Filters)

Dimension of the bags: Height = 100"

The cloth area = 318 ft^2

System flow rate 1500 CFM

Air/Cloth = 1500 CFM x $\frac{1}{318\ ft^2}$ = 4.72ft/min.

Air/Cloth Ratio = 4.72/1

Stack: diameter 0.6 ft = 8 inch
area = 0.35 ft^2

Velocity = 1500 CFM/(0.35 ft^2 x 60 sec/min)

Velocity = 71.8 ft/sec

Gas Flow Rate = 1500 CFM @ 70°F

SECTION V: Calculations when using both the 66" & 73" Raymond Mills on Storage Silo No. 5 on Model 100 BVBS-25 Bin Vent

SUPPLEMENTAL REQUIREMENTS

1)b Process Input Rate = 26.98 tons/hr

Operation time 24 hr/day, 7 day/week, 52 weeks/yr

Process input rate = 11.99 ton/hr + 14.99 ton/hr = 26.98 tons/hr x 2000 lb/ton = 53,960 lbs/hr

Product Weight = Process input - actual emissions

= 53,960 lb/hr - 0.54 lb/hr

= 53,959.46 lb/ hr

= 53,959.46 lb/hr x 1 ton/2000 lbs

= 26.98 tons/hr

EMISSIONS ESTIMATES:

2)b Actual Emissions:

The baghouse efficiency is plus 99 percent

Actual Emission = Potential (1-.99)

= 53.96 lb/hr (1-.99)

= 0.54 lb/hr = 2.36 tons/yr

Allowable Emissions:

$E = 3.59\ P^{.62}$

Process Weight = P = 15 tons/hr

$E = 3.59\ (26.98)^{.62}$

= 27.7 lb/hr

STORAGE SILO NO. 5

CALCULATIONS ON MODEL 100 BVBS-25 BIN VENT

WHEN USING BOTH THE 66" & 73" RAYMOND MILLS

3)b Potential Emissions (Uncontrolled Emission)

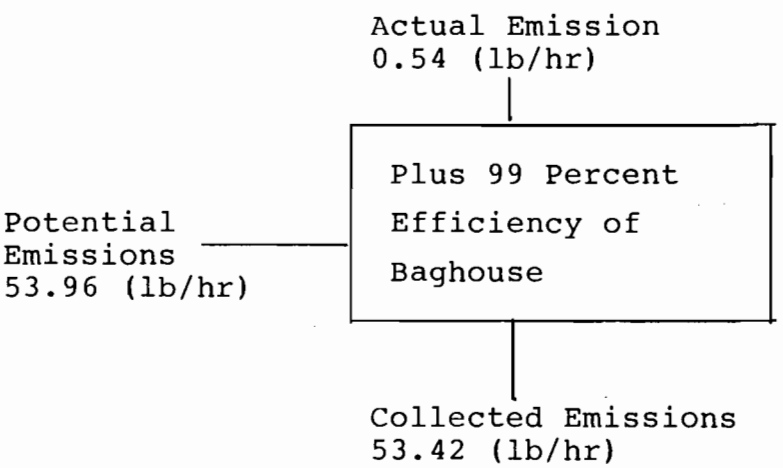
From Page 22

26.98 tons/hr x 2 lbs/ton = 53.96 lb/hr

53.96 lb/hr x 1 ton/2000 lbs x 24 hr/day x 7 days/wk

x 52 wks/yr = 235.7 tons/yr

Collected Emissions



Collected Emissions = Potential - Actural

53.96 - 53.42 = 0.54 lb/hr

8.20.1 Process Description[1]

Rock and crushed stone products are loosened by drilling and blasting them from their deposit beds and are removed with the use of heavy earth-moving equipment. This mining of rock is done primarily in open pits. The use of pneumatic drilling and cutting, as well as blasting and transferring, causes considerable dust formation. Further processing includes crushing, regrinding, and removal of fines.[2] Dust emissions can occur from all of these operations, as well as from quarrying, transferring, loading, and storage operations. Drying operations, when used, can also be a source of dust emissions.

8.20.2 Emissions[1]

As enumerated above, dust emissions occur from many operations in stone quarrying and processing. Although a big portion of these emissions is heavy particles that settle out within the plant, an attempt has been made to estimate the suspended particulates. These emission factors are shown in Table 8.20-1. Factors affecting emissions include the amount of rock processed; the method of transfer of the rock; the moisture content of the raw material; the degree of enclosure of the transferring, processing, and storage areas; and the degree to which control equipment is used on the processes.

Table 8.20-1. PARTICULATE EMISSION FACTORS FOR ROCK-HANDLING PROCESSES
EMISSION FACTOR RATING: C

Type of process	Uncontrolled total[a] lb/ton	Uncontrolled total[a] kg/MT	Settled out in plant, %	Suspended emission lb/ton	Suspended emission kg/MT
Dry crushing operations[b,c]					
Primary crushing	0.5	0.25	80	0.1	0.05
Secondary crushing and screening	1.5	0.75	60	0.6	0.3
Tertiary crushing and screening (if used)	6	3	40	3.6	1.8
Recrushing and screening	5	2.5	50	2.5	1.25
√ Fines mill	(6)	3	25	4.5	2.25
Miscellaneous operations[d]					
Screening, conveying, and handling[e]	(2)	1			
Storage pile losses[f]					

[a] Typical collection efficiencies: cyclone, 70 to 85 percent; fabric filter, 99 percent.

[b] All values are based on raw material entering primary crusher, except those for recrushing and screening, which are based on throughput for that operation.

[c] Reference 3.

[d] Based on units of stored product.

[e] Reference 4.

[f] See section 11.2.3.

EPA-450/3-77-010

Particle Size

TECHNICAL GUIDANCE FOR CONTROL OF INDUSTRIAL PROCESS FUGITIVE PARTICULATE EMISSIONS

by

PEDCo Environmental, Inc.
Chester Towers
11499 Chester Road
Cincinnati, Ohio 45246

Contract No. 68-02-1375
Task No. 33
Project No. 3155-GG

EPA Project Officer: Gilbert H. Wood

Prepared for

ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

March 1977

industry, in terms of individual plant production (amount of limestone processed and subsequent disposition in the form of aggregate construction material, quicklime, and a variety of hydrated lime products), the plant inventory is not meant to display a typical plant, but merely a model plant with arbitrarily selected individual process operation throughputs.

By-product lime from quicklime screening (fines) and the lime hydration air separator are further processed or stored for local markets (e.g. local farmers for agricultural use). Fugitive emissions collected from fabric filters and other removal equipment are most often returned to process streams; those which cannot be returned to process streams are hauled to lime storage or waste piles.

Not included in the inventory are fugitive emissions from plant haul roads, waste areas, and quarrying operations. Emission factors for these sources are presented in Sections 2.1 and 2.6. Total model plant uncontrolled process fugitive particulate emissions are 129 Mg (141 tons) per year.

2.9.4 Characteristics of Fugitive Emissions

Fugitive particulate emissions from lime production consist basically of limestone dust from operation prior to calcination and lime dust from operation following calcination. Fugitive particulate emission from limestone storage, handling, and transfer typically has a mean particulate diameter of 3-6 μm, 45-70 percent of which are less than 5 μm.[6]

Little other information concerning fugitive particulate emission characteristics from lime production is available. The following information pertaining to stack emissions characteristics is presented since they most likely closely parallel those of fugitive emissions.[7,8]

SOUTHERN MATERIALS CORPORATION

SECTION V

ITEM 4

66" Raymond Mill
Dust Collection System

66" RAYMOND MILL COLLECTOR:

OPERATING CONDITIONS

Application:	Venting Raymond Mill
Dust Type:	Calcium Carbonate
Gas Volume:	2,800 ACFM
Gas Temperature:	Ambient
Dust Loading:	10-20 gr/ACF assumed
Particle Size:	Unknown
Moisture:	Dry
Location:	Outdoors

Based on the above conditions, we propose to supply the following:

One (1) Model 100WRBS-48, Arrangement III, Flex-Kleen Dust Collector as generally described in attached WR Bulletin with dimensions and construction details as generally shown on Planograph A-85JF-042.

The collector will have 610 sq. ft. of filter cloth area (48 bags) and will provide an air-to-cloth ratio of 4.59/1 at 2,800 ACFM at 70°F.

The unit will include the following features and equipment.

- Welded mild steel housing designed to withstand 17" w.g. positive or negative pressure, with one (1) 20" X 44" quick opening, hinged man access door with sloped ledge.
- Welded mild steel clean air plenum with 10 ga. mild steel adequately braced tube sheet, top access port, Schedule 40 mild steel internal air piping and flanged gas outlet.
- Welded mild steel hopper with 60° sloping sides, flanged gas inlet with internal baffle and flanged material discharge outlet, drilled to accept 8" rotary airlock as outlined below.
- Mild steel saddle supports for mounting support.
- Mild steel compressed air header assembly, complete with pre-piped aluminum diaphragm valves and pilot solenoid air valves pre-wired to a terminal strip in a NEMA 4 enclosure.
- Mild steel bag cages.
- Die-cast aluminum venturi nozzles (1/8" minimum section) and galvanized bag cups.

- o 304 stainless steel bag clamps.
- o 16 oz. polyester felted filter bags (100" long).
- o Astro-Flex electronic sequential timer in NEMA 4 enclosure for remote mounting by others.
- o Direct reading differential pressure gauge.
- o Air pressure gauge.
- o All exterior mild steel surfaces to have one (1) air-dried coat of shop applied primer.

The unit will be shipped in one (1) piece; bags, clamps, cages, timer, timer enclosure and gauges shipped separately to prevent damage in transit.

PRICE.....

OPTIONS/ACCESSORIES

One (1) FK-8X8-HD Flex-Kleen Heavy Duty rotary airlock in cast iron construction with 6 vane fabricated rotor, outboard bearings, external packing gland, speed reducer with 3/4 HP, TEFC C-faced motor and chain drive with guard.

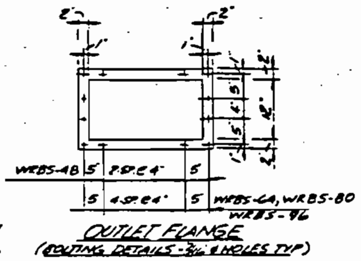
PRICE.....

One (1) complete set of structural support legs with cross bracing to provide 4'-0" clearance from bottom of hopper to grade. Complies with Uniform Building Code and designed in accordance with AISC Code for Seismic Zone 1 & 2 and windload of 100 miles per hour.

PRICE.....

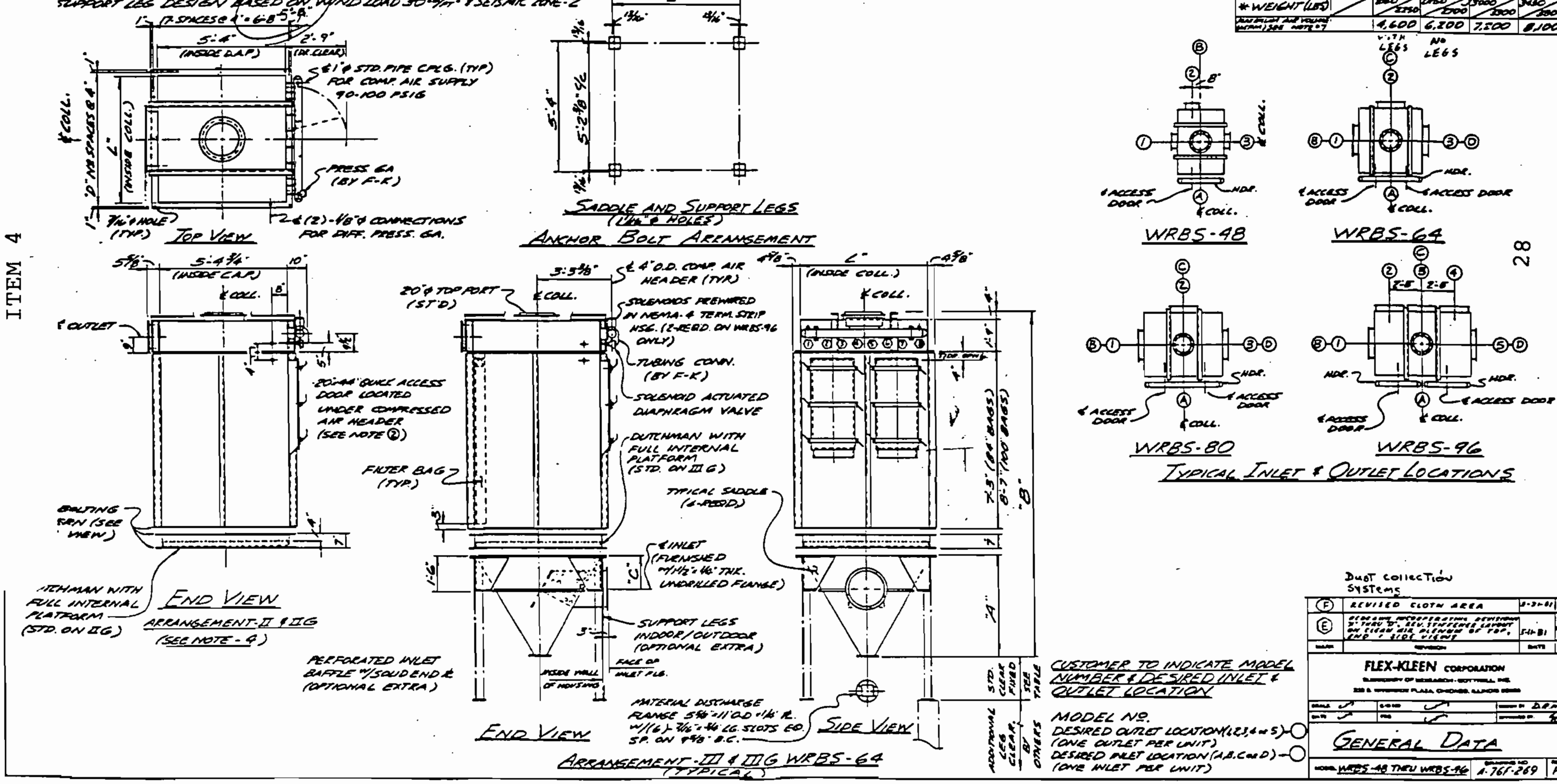
SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 4

NOTES:
1) COMPRESSED AIR USAGE IS BASED ON AVERAGE TIMER SETTINGS FOR A PROPERLY SIZED DUST COLLECTOR
2) MODELS WRBS-64 THRU WRBS-96 WILL HAVE TWO (2) QUICK ACCESS DOORS.
3) DESIGN PRESSURE IS ±17 W.G
4) WHEN DUTCHMAN/PLATFORM IS INCLUDED W/UNIT THE MODEL BECOMES "ARR. IIG" OR "IIIG".
5) DRAWING IS TO BE USED FOR GENERAL ARRANGEMENT ONLY AND NOT TO BE USED FOR FIELD CONSTRUCTION UNLESS IT IS CERTIFIED
6) ALL EXTERIOR MILD STEEL SURFACES TO HAVE ONE (1) SHOP PRIME COAT
7) INLETS AND OUTLETS HAVE BEEN SIZED FOR AN APPROXIMATE AIR-CLOTH RATIO OF 8/1. CHECK WITH FLEX-KLEEN OFFICE WHEN RATIOS EXCEED 8/1. & AIR VOLUMES ARE IN EXCESS OF MAXIMUM SHOW IN TABLE. SUPPORT LEG DESIGN BASED ON WIND LOAD 30 #/FT² & SEISMIC ZONE-2



* WEIGHT IN TABLE IS FOR ARRANGEMENT III
** OVERALL DIMENSION IS GIVEN FOR ARRANGEMENT IIIG. SUBTRACT 7" IF DUTCHMAN GRID IS NOT REQUIRED.
D.A.P. = DUSTY AIR PLENUM
C.A.P. = CLEAN AIR PLENUM

		66" MILL	73" MILL		
MODEL - 84/100		WRBS-48	WRBS-64	WRBS-80	WRBS-96
NO OF BAGS		48	64	80	96
Ⓕ CLOTH AREA (FT.²)		504 / 610	678 / 813	848 / 1016	1018 / 1219
DIMENSIONS	L	4'-0"	5'-4"	6'-8"	8'-0"
	A	4'-3"	4'-3"	5'-5"	6'-6"
	** B	14'-2" / 15'-6	14'-2" / 15'-6	15'-4" / 16'-8	16'-5" / 17'-9
	C	1'-5"	1'-6"	1'-7"	1'-8"
	D	13	17	21	25
	INLET O.D.	15"	16"	20"	22"
	OUTLET SIZE	12"×16"	12"×24"	12"×24"	12"×24"
CLEARANCE HEIGHT (FIXED)		4'-0"	[illegible]	4'-0"	4'-0"
NO OF SOLENOIDS		6	8	10	12
COMP. AIR REQMTS. SCFM @ 90-100 PSIG		9.5	11.3	13.5	15.0
* WEIGHT (LBS)		2860 / 2350	2460 / 2700	3000 / 3300	3450 / 3800
MAXIMUM AIR VOLUME (ACFM) SEE NOTE #7		4,600	6,200	7,500	8,100
		WITH LEGS	NO LEGS		



CUSTOMER TO INDICATE MODEL NUMBER & DESIRED INLET & OUTLET LOCATION

MODEL NO. ____
DESIRED OUTLET LOCATION (1,2,3,4 or 5) — ○
(ONE OUTLET PER UNIT)
DESIRED INLET LOCATION (A,B,C or D) — ○
(ONE INLET PER UNIT)

Dust Collection Systems

MARK	REVISION	DATE	BY
Ⓕ	REVISED CLOTH AREA	8-3-81	
Ⓔ	[illegible]	5-4-81	

FLEX-KLEEN CORPORATION

GENERAL DATA

WRBS-48 THRU WRBS-96 — A-761-269 — REV. F

28

130-16-0032 F

SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 4A

STORAGE SILO NO.5
DUST COLLECTION SYSTEM

Based on the above conditions, we propose to supply the following:

One (1) Model 100BVBS-25, Arrangement IIG, Flex-Kleen Bin Vent as generally described in attached BV Bulletin with dimensions and construction details as generally shown on Planograph A-84JF-153.

The collector will have 318 sq. ft. of filter cloth area (25 bags) and will provide an air-to-cloth ratio of 4.72/1 at 1,500 ACFM at 70°F.

The unit will include the following features and equipment.

- Welded 12 ga. mild steel housing designed to withstand 17" w.g. positive or negative pressure, with one (1) 20" X 44" quick opening, hinged man access door and full internal grid below bags made of #4 ga. mild steel mesh with 4" X 4" opening, designed to prevent bags from dropping into hopper and braced to support the weight of a man.

- Welded 12 ga. mild steel clean air plenum with 12 ga. mild steel adequately braced tube sheet, Schedule 40 mild steel internal air piping and stub pipe gas outlet.

- Mild steel mounting flange at bottom of housing for attachment to flange on customer's bin, silo, etc.

- Mild steel compressed air header assembly, complete with pre-piped aluminum diaphragm valves and pilot solenoid air valves pre-wired to a terminal strip in a NEMA 4 enclosure.

- Mild steel bag cages.

- Die-cast aluminum venturi nozzles (1/8" minimum section) and galvanized bag cups.

- 304 stainless steel bag clamps.

- 16 oz. polyester felted filter bags (100" long).

- Astro-Flex electronic sequential timer mounted in solenoid enclosure outlined above.

- Direct reading differential pressure gauge.

- Air pressure gauge.

- All exterior mild steel surfaces to have one (1) air-dried coat of shop applied primer.

The unit will be shipped in one (1) piece; bags, clamps, cages, timer, timer enclosure and gauges shipped separately to prevent damage in transit.

PRICE.....

OPTIONS/ACCESSORIES

One (1) Model PB-12 roof mounted, direct driven fan in aluminum construction with cast aluminum wheel, combination adjustable damper/weatherhood with bird screen and 3 HP, 3,450 rpm, 3/60/230/460 volt, TEFC motor. Unit to deliver up to 1,140 acfm at 5" S.P. at 70°F.

PRICE.....

Shipment can be made in seven to eight (7-8) weeks after receipt and acceptance of Purchase Order at factory with full particulars or upon final approval of submittal drawings, whichever is applicable.

If approval is required, allow three to four (3-4) weeks for first submittal of "Certified Drawings for Approval" and two to three (2-3) weeks for each resubmittal, if required.

Equipment is quoted F.O.B. shipping point, freight pre-paid but not allowed.

Prices quoted are firm for thirty (30) days.

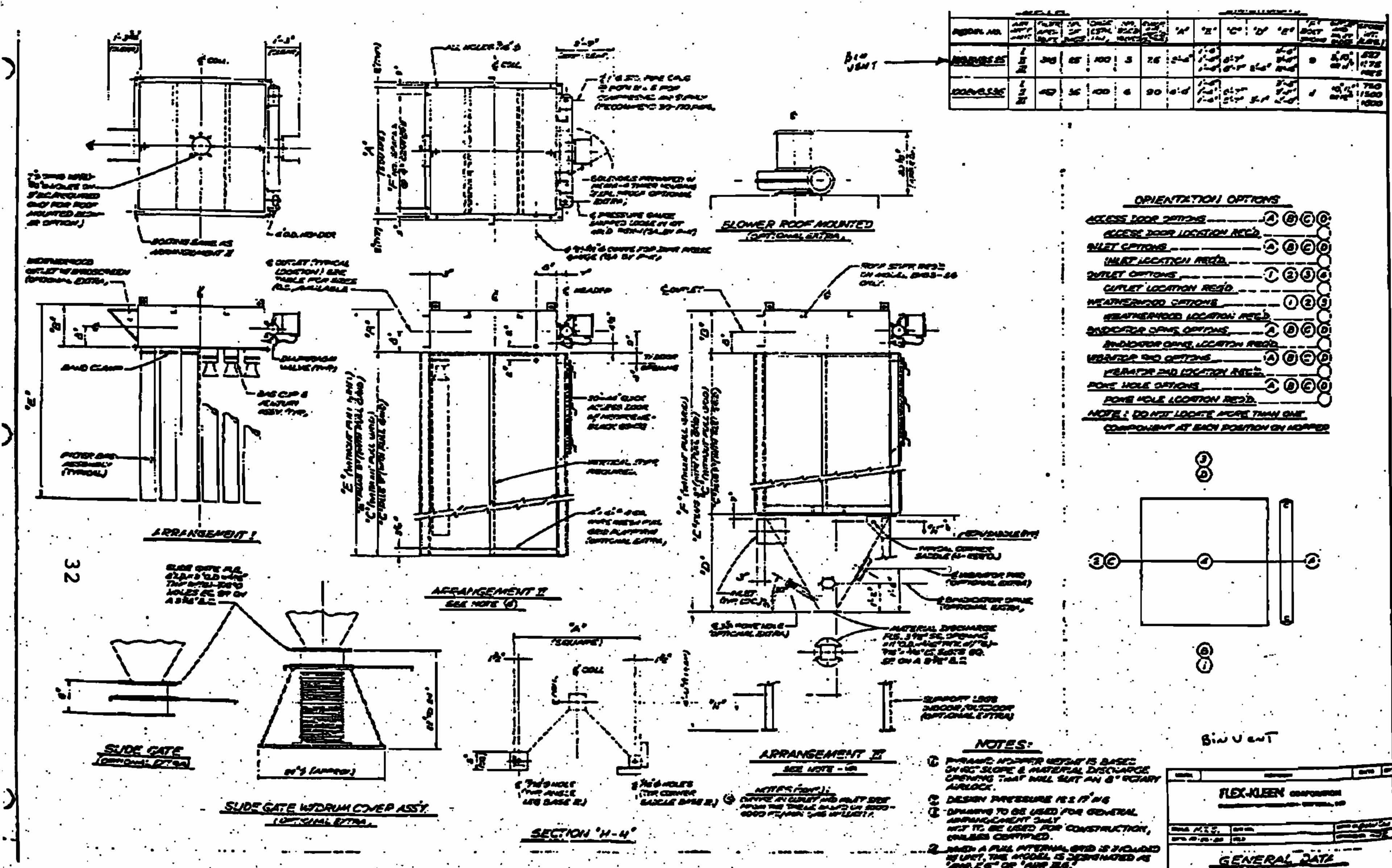
Prices will remain firm for shipment up to six (6) months from date of order acceptance. Beyond this six (6) month period, escalation as outlined in attached Flex-Kleen Terms and Conditions of Sale will apply.

Taxes are not included in above prices.

Our Terms of Payment are net thirty (30) days.

Should you honor us with this order, it should be addressed as follows:

Flex-Kleen Corporation
c/o E-CON, INC.
125 Powers Ferry Road
Marietta, Georgia 30067


ARRANGEMENT I
ARRANGEMENT II
ARRANGEMENT III
BLOWER ROOF MOUNTED
ORIENTATION OPTIONS
SLIDE GATE
SLIDE GATE W/DRUM COVER ASSY.
SECTION "H-H"
NOTES:
BIN VENT
FLEX-KLEEN
GENERAL DATA

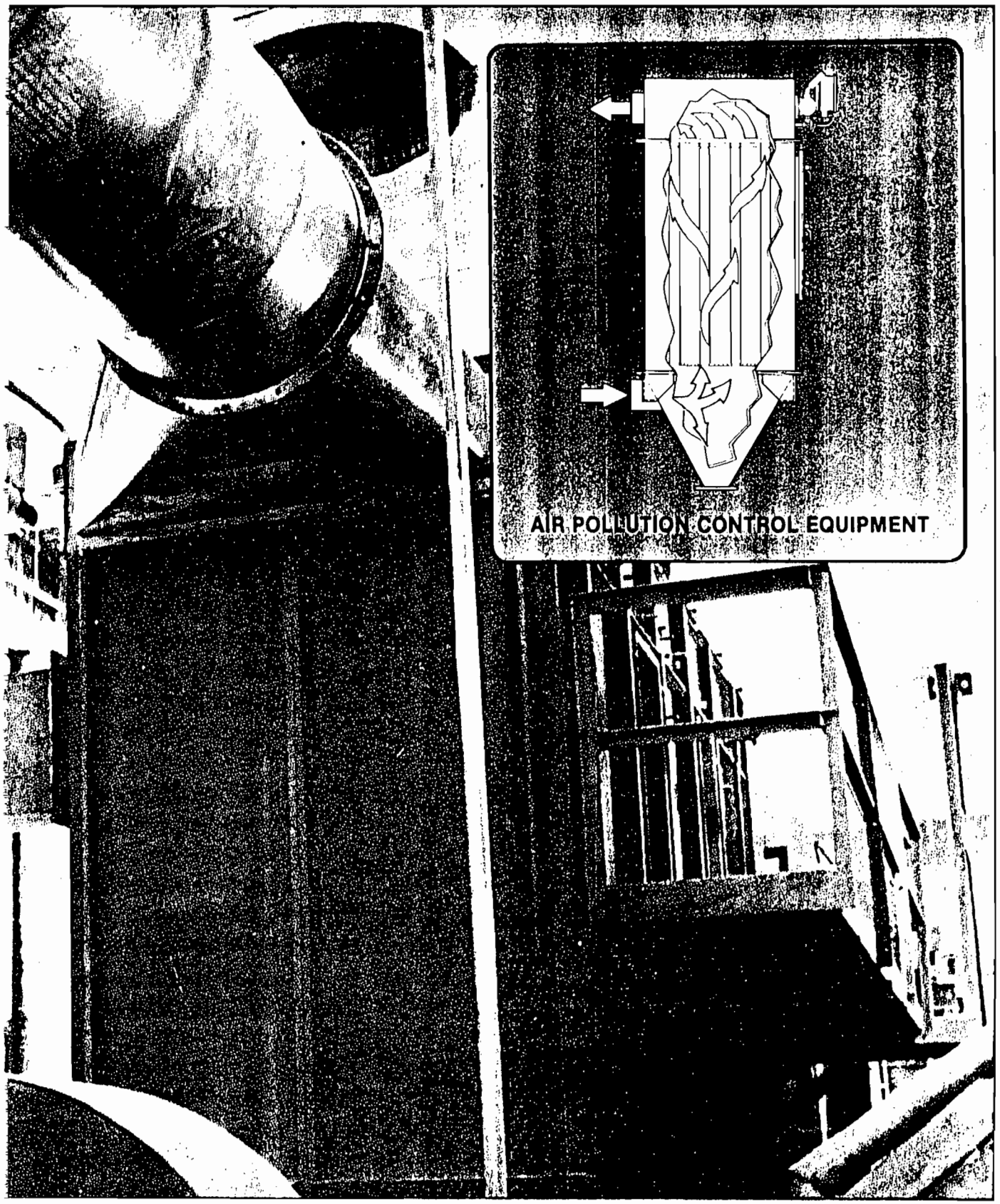
SOUTHERN MATERIALS CORPORATION

SECTION V

ITEM 5

66" Raymond Mill
Dust Collection System

WR Series
Welded Pulse Jet Dust Collectors



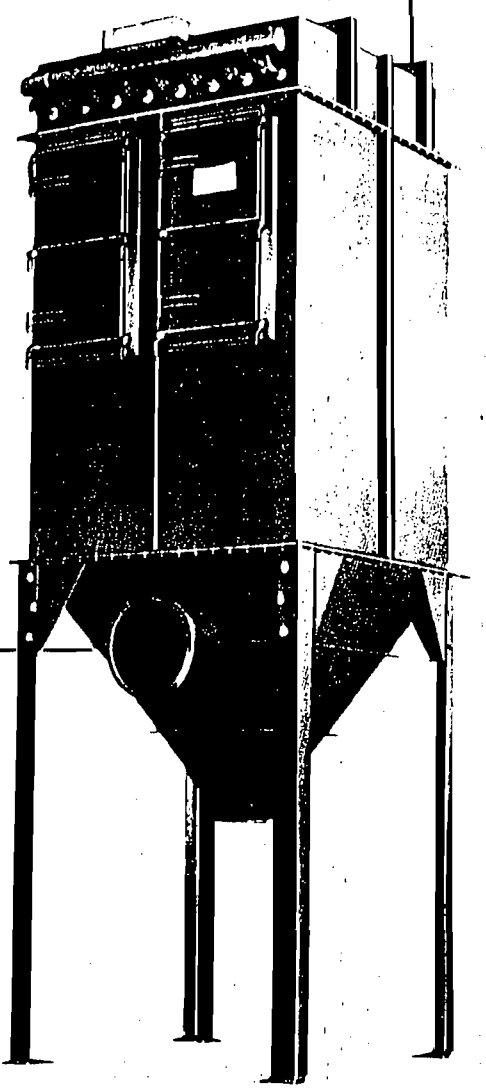
Flex-Kleen
Research-Cottrell

WR Series offers excellent filtration efficiency — for product recovery systems, large bin venting applications and general nuisance dust collection.

Advantages

The WR Series of welded pulse jet dust collectors offers:

- **Easy installation**
  Depending on size, unit may be shipped completely assembled. Or, welded sections are shop assembled for quick and easy field erection, low field labor costs.
- **Quick-mounting air headers**
  In most cases, compressed air headers are shipped pre-wired and pre-piped, ready to mount.
- **Low operating costs**
- **Timer reduces energy costs**
  Adjustable timer maintains low pressure drop, with minimum compressed air consumption. Energy costs are reduced.
- **Differential pressure gauge**
  Supplied as a standard item to evaluate collector operation and optimize bag cleaning capacity.
- **Minimum maintenance**
  No internal moving parts. Interior maintenance is greatly reduced. Collector shut-down is minimized.
- **Quick bag replacement**
  Bag and cage are designed to attach easily, permitting quick bag replacement.



Features

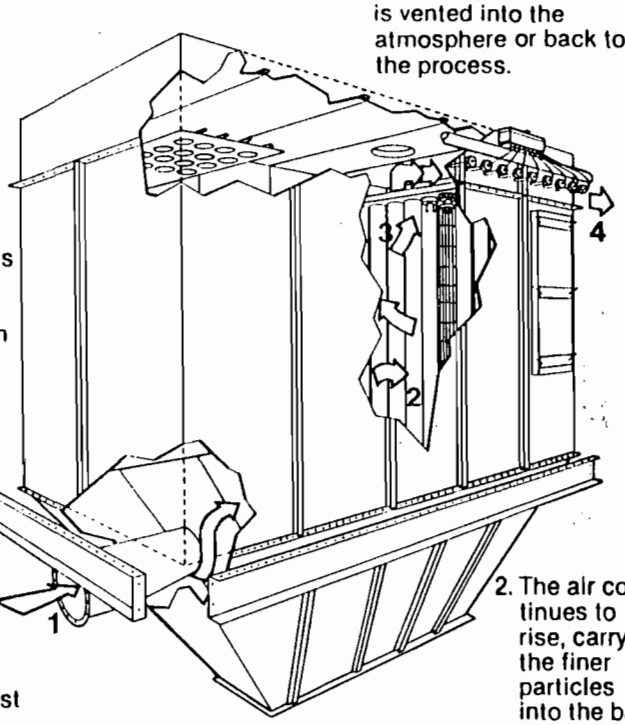
- Models available with bottom *and* top bag removal.
- Durable construction of welded 12 gauge hot rolled steel.
- Flanged air inlet, outlet and flanged dust discharge.
- 20" diameter top access port(s) to clean air plenum.
- Heavy gauge, cast aluminum venturis.
- Heavy duty, smooth wire cages.
- NEMA 4 (weathertight) electricals.
- Corner saddle supports – through 96 bag size.
- Six inch girth channel for continuous support – on sizes larger than 96 bags.
- Weatherproof walk-in clean air plenum (applies to top bag removal only).
- Differential pressure and air header gauges.
- Door sills have built-in 45° slopes.

Options

- Top bag removal with lift-off doors or walk-in plenum.
- Bag cages epoxy coated or 304SS.
- Wide range of interior coatings.
- Electrical components rated for hazardous service.
- Inlet baffle with target plate.
- Full internal service grid.
- Standard legs.
- Standard exterior access platform.
- Quick release bag clamp (bottom bag removal only).
- High efficiency filter bags, in a variety of materials.

WR Series operation

WR Units are high efficiency intermediate filters, operating as follows:

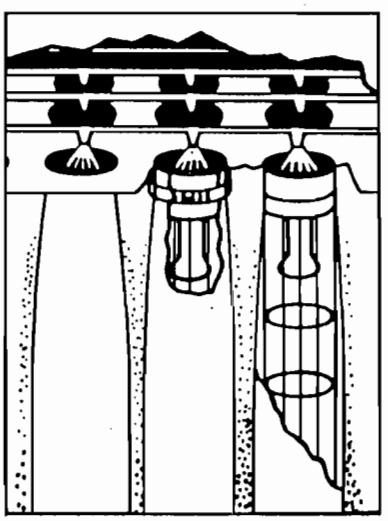


Pulse jet bag cleaning

A pneumatic pulse jet system provides continuous, automatic bag cleaning.

On a timed cycle, a burst of compressed air is directed down through a venturi at the top of the bag. This induces clean air into the bag, setting up a pneumatic shockwave inside it. The airflow through the bag is momentarily stopped, the bag is firmly flexed, causing the accumulated dust particles to drop off of the bag into the silo or collector hopper.

Since only one row of bags is cleaned at a time there is no



the filter. This provides a smooth operating dust control or material handling system.

Equipment characteristics

WR collectors are design engineered for product recovery systems, general nuisance dust control and large bin venting situations. They feature a low-pressure design, with a rating of 17" W.G. as a standard requirement. These welded units have a capacity to 18,000 CFM, with high air-to-cloth ratios and excellent filtration efficiencies. Units range from 509 to 2,438 sq. ft. of cloth in large selection of sizes. Unit width is 5'4" (with no walkways) with 8 bags per row. Length varies from 4' to 16'. Bags, cages, and headers are shipped separately to avoid damage in transit.

Equipment arrangements

WR units can be purchased in three basic arrangements, to satisfy specific user requirements.

I. Clean air plenum and bag cleaning mechanism, flanged at tube sheet for mounting on customer's equipment.

II. Clean air plenum, bag cleaning mechanism and baghouse, flanged for mounting on user's equipment.

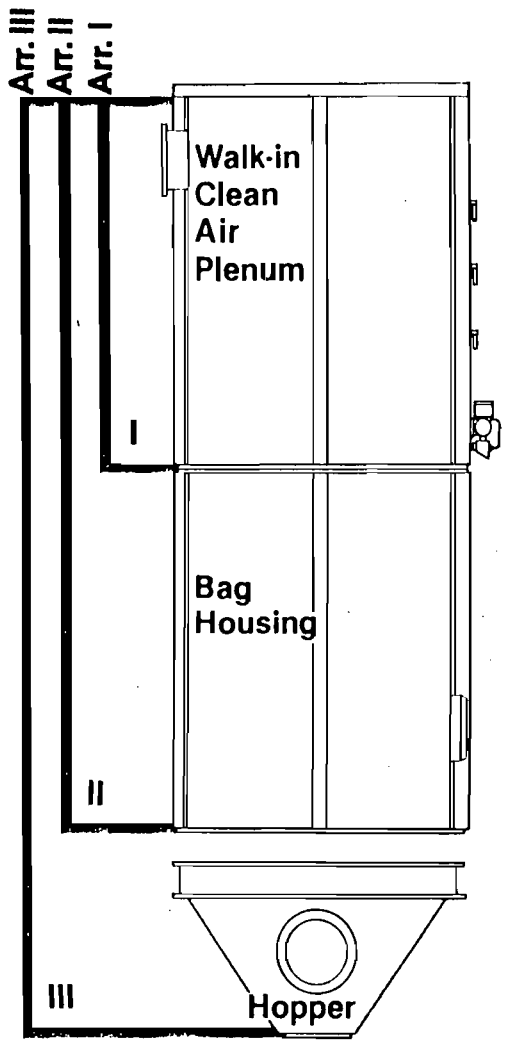
III. Clean air plenum, bag cleaning mechanism, baghouse, and hopper with dusty air inlet and flanged dust outlet. Unit functions as complete dust collector.

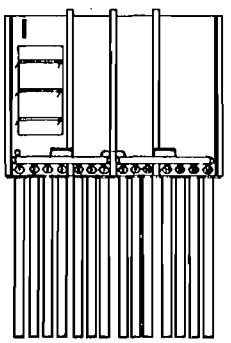
Capabilities

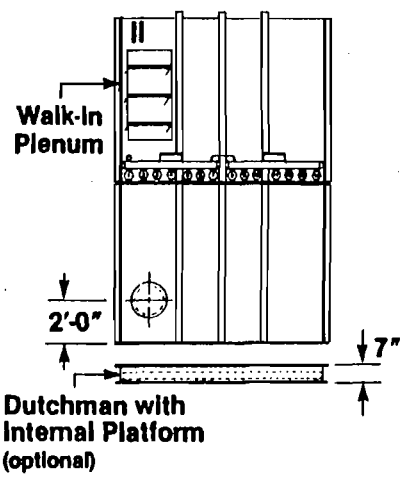
The WR Series is only one of the highly efficient lines of pollution control equipment manufactured by Flex-Kleen Corporation. As specialists in the field of pollution control, Flex-Kleen has been helping to solve dust control problems for over 20 years. Result? Whatever Flex-Kleen dust collectors we supply – from simple bin vents to sophisticated baghouses - you can be sure they all work without frequent adjustment, attention or problems. For at Flex-Kleen, we specialize in "taking the nuisance out of dust control."

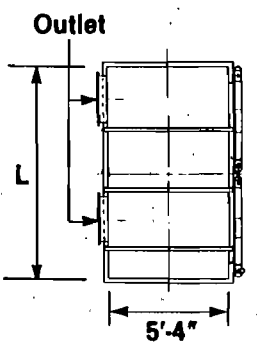
Equipment Specifications

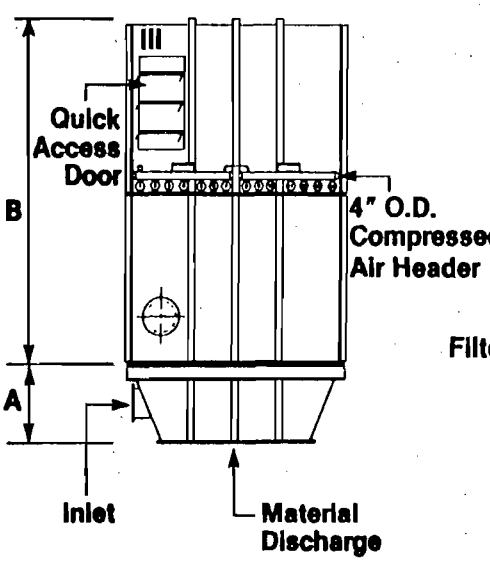
WRWS-112 Shown

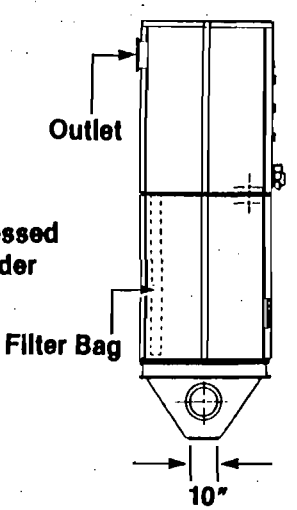






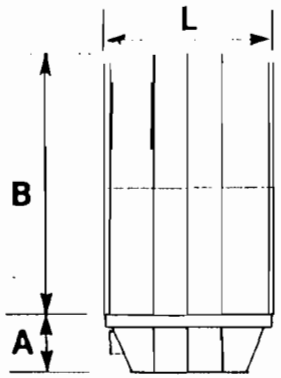






The WR Series...
taking the nuisance out of dust control in large bins and product recovery systems.

Ordering Information - WR Series (WRWS Model)



Select from a wide range of models... all designed to solve your dust control problems. With a wide range of sizes available, it's easy to match the collector size to *your* application.

Custom WR

Custom collectors, available in the sizes shown on the chart, can be modified and manufactured to meet exacting customer requirements (for hazardous service, sanitary applications, height limitations, etc.).

Stock WR

The standard line is designed with features required to meet most dust control applications. Stocking of these standardized components permits fast delivery, and lower cost.

Model No. Top Bag Removal	Filter Area (Sq. Ft.)	Comp Air Req'd. (SCFM)	L	B	A
					Pyramid Hopper
84-WRWS-48	509	9.5	4'-0"	14'-9½"	4'-3"
100-WRWS-48	610	9.5	4'-0"	17'-5½"	4'-3"
84-WRWS-64	678	11.3	5'-4"	14'-9½"	4'-3"
100-WRWS-64	813	11.3	5'-4"	17'-5½"	4'-3"
84-WRWS-80	848	13.5	6'-8"	14'-9½"	5'-5"
100-WRWS-80	1016	13.5	6'-8"	17'-5½"	5'-5"
84-WRWS-96	1018	15.0	8'-0"	14'-9½"	6'-6"
100-WRWS-96	1219	15.0	8'-0"	17'-5½"	6'-6"
					Trough Hopper
84-WRWS-112	1187	16.4	9'-4"	14'-9½"	3'-11"
100-WRWS-112	1422	16.4	9'-4"	17'-5½"	3'-11"
84-WRWS-128	1357	18.7	10'-8"	14'-9½"	3'-11"
100-WRWS-128	1626	18.7	10'-8"	17'-5½"	3'-11"
84-WRWS-144	1526	21.0	12'-0"	14'-9½"	3'-11"
100-WRWS-144	1829	21.0	12'-0"	17'-5½"	3'-11"
84-WRWS-160	1696	23.4	13'-4"	14'-9½"	3'-11"
100-WRWS-160	2032	23.4	13'-4"	17'-5½"	3'-11"
84-WRWS-176	1866	25.7	14'-8"	14'-9½"	3'-11"
100-WRWS-176	2235	25.7	14'-8"	17'-5½"	3'-11"
84-WRWS-192	2035	28.0	16'-0"	14'-9½"	3'-11"
100-WRWS-192	2438	28.0	16'-0"	17'-5½"	3'-11"

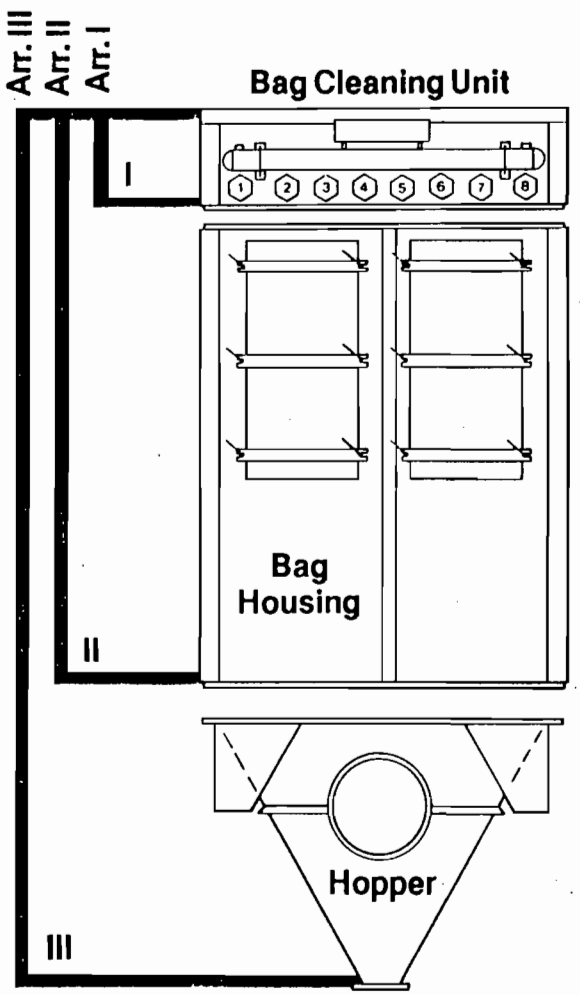
WR Series

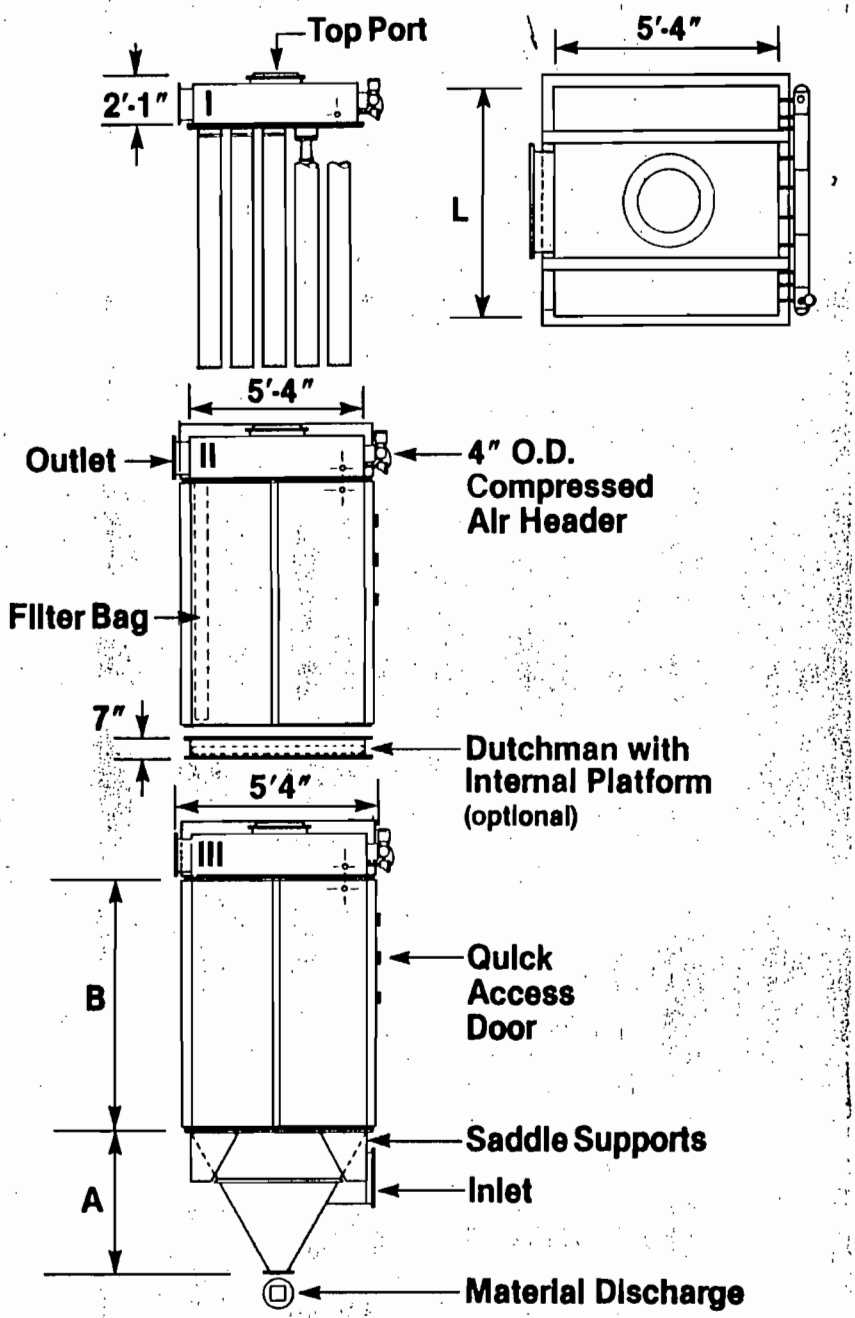
WRBS - WRB stock unit, bottom bag removal
WRBC - Stock unit modified for special requirements; bottom bag removal
WRTS - Top bag removal with lift-off roof doors
WRWS - Top bag removal with walk-in plenum

Ask your Flex-Kleen representative about the WR Series of welded dust collectors — let Flex-Kleen help you take the nuisance out of dust control in product recovery and large bin areas. For additional information, please call our sales manager at (312) 648-5371.

Equipment Specifications

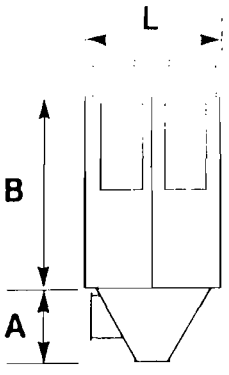
WRBS-64 Shown





The WR Series...
taking the nuisance out of dust control in large bins and product recovery systems.

Ordering Information - WR Series (WRBS Model)



Select from a wide range of models... all designed to solve your dust control problems. With a wide range of sizes available, it's easy to match the collector size to *your* application.

Custom WR

Custom collectors, available in the sizes shown on the chart, can be modified and manufactured to meet exacting customer requirements (for hazardous service, sanitary applications, height limitations, etc.).

Stock WR

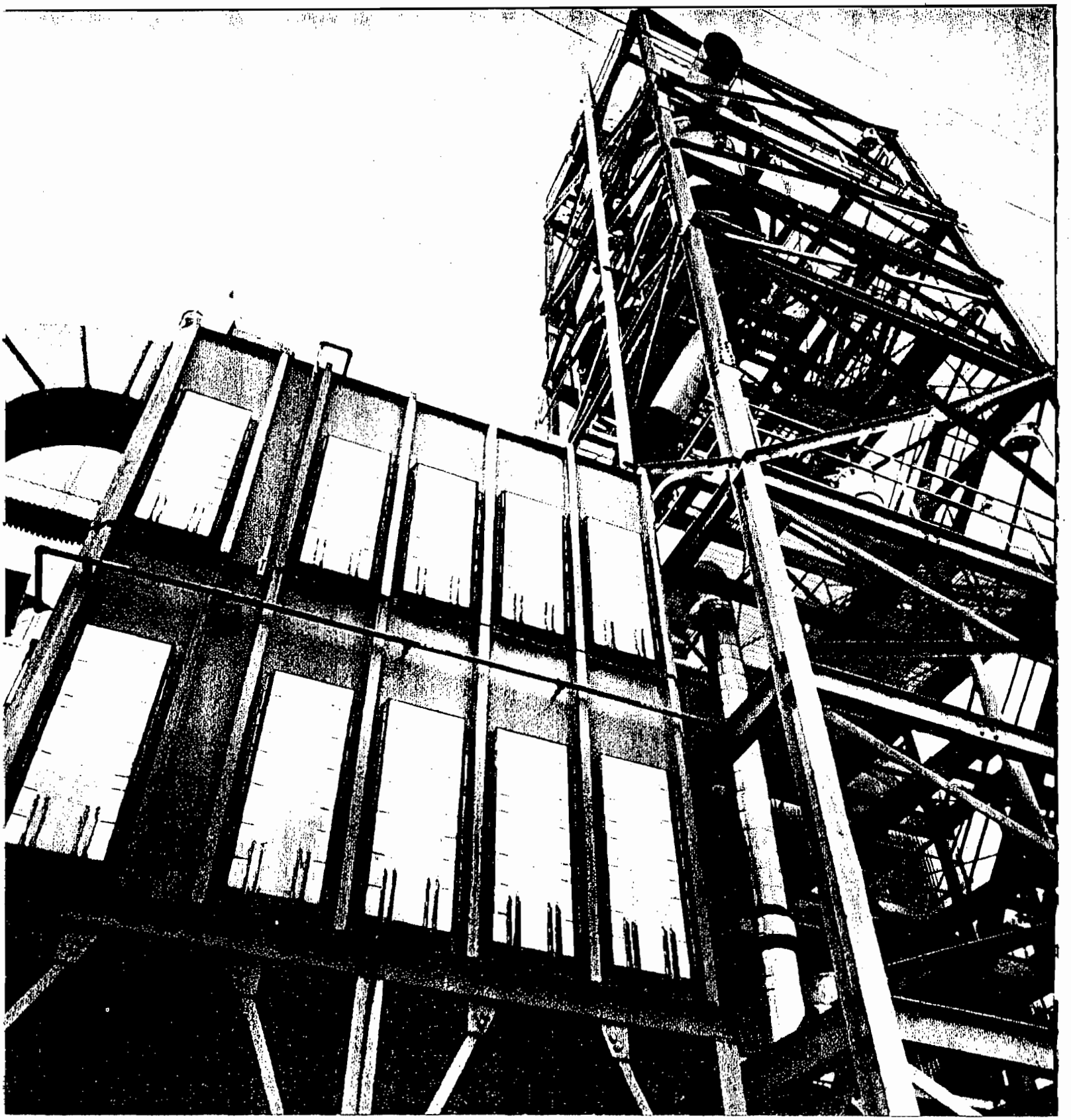
The standard line is designed with features required to meet most dust control applications. Stocking of these standardized components permits fast delivery, and lower cost.

Model No. Bottom Bag Removal	Filter Area (Sq. Ft.)	Comp. Air Req'd. (SCFM)	L	B	A
					Pyramid Hopper
84-WRBS-48	509	9.5	4'-0"	7'-3"	4'-3"
100-WRBS-48	610	9.5	4'-0"	8'-7"	4'-3"
84-WRBS-64	678	11.3	5'-4"	7'-3"	4'-3"
100-WRBS-64	813	11.3	5'-4"	8'-7"	4'-3"
84-WRBS-80	848	13.5	6'-8"	7'-3"	5'-5"
100-WRBS-80	1016	13.5	6'-8"	8'-7"	5'-5"
84-WRBS-96	1018	15.0	8'-0"	7'-3"	6'-6"
100-WRBS-96	1219	15.0	8'-0"	8'-7"	6'-6"
					Trough Hopper
84-WRBS-112	1187	16.4	9'-4"	7'-3"	3'-11"
100-WRBS-112	1422	16.4	9'-4"	8'-7"	3'-11"
84-WRBS-128	1357	18.7	10'-8"	7'-3"	3'-11"
100-WRBS-128	1626	18.7	10'-8"	8'-7"	3'-11"
84-WRBS-144	1526	21.0	12'-0"	7'-3"	3'-11"
100-WRBS-144	1829	21.0	12'-0"	8'-7"	3'-11"
84-WRBS-160	1696	23.4	13'-4"	7'-3"	3'-11"
100-WRBS-160	2032	23.4	13'-4"	8'-7"	3'-11"
84-WRBS-176	1866	25.7	14'-8"	7'-3"	3'-11"
100-WRBS-176	2235	25.7	14'-8"	8'-7"	3'-11"
84-WRBS-192	2035	28.0	16'-0"	7'-3"	3'-11"
100-WRBS-192	2438	28.0	16'-0"	8'-7"	3'-11"

WR Series

WRBS - WRB stock unit, bottom bag removal
WRBC - Stock unit modified for special requirements; bottom bag removal
WRTS - Top bag removal with lift-off roof doors
WRWS - Top bag removal with walk-in plenum

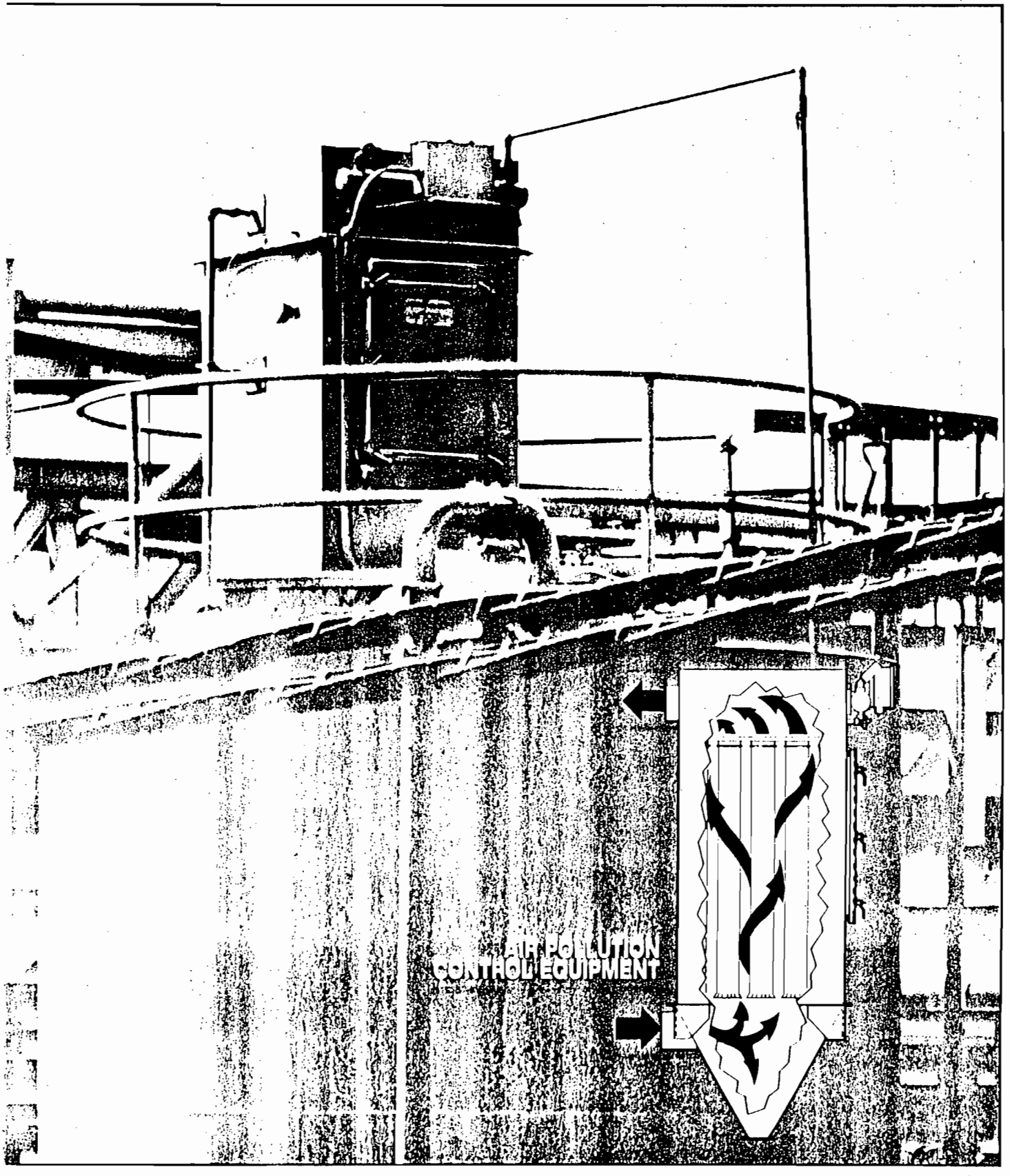
Ask your Flex-Kleen representative about the WR Series of welded dust collectors — let Flex-Kleen help you take the nuisance out of dust control in product recovery and large bin areas. For additional information, please call our sales manager at (312) 648-5371.



SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 5A

Storage Silo No. 5
Dust Collection System

BV Series...pulse jet bin vents/dust collectors



Flex-Kleen
Research-Cottrell

BV Series, solving dust control problems in bins and silos

Capabilities—Over 99% efficiency.

The BV Series is only one of the highly efficient lines of pollution control equipment manufactured by Flex-Kleen Corporation. As specialists in the field of pollution control, Flex-Kleen has been helping to solve dust control problems for over 20 years. Result? Whatever Flex-Kleen dust collectors we supply—from simple bin vents to sophisticated baghouses—you can be sure they all work without frequent adjustment, attention, or problems. For at Flex-Kleen, we specialize in "taking the nuisance out of dust control."

Advantages.

The BV Series of bin vents/dust collectors offers:

High efficiency—BV units remove over 99% of dust particles from the air.

Lower cost—Compact BV units are designed for higher air-to-cloth ratios. You get more performance from a smaller piece of equipment. Lower initial cost. Less maintenance cost.

Easy installation—Welded, assembled housing is shipped ready to set in place. No field assembly required.

Minimum maintenance—No moving parts inside baghouse. Solid-state timer and small air valves are *outside* the unit—easily accessible for routine inspection.

Design engineered—BV Series of bin vents/dust collectors is specifically designed to solve dusting problems in bins and silos—engineered for maximum performance under these conditions.

Characteristics.

BV bin vents/dust collectors feature a low pressure housing design, geared for lighter dust loads, handling air volumes in the range of 500 to 2500 CFM.

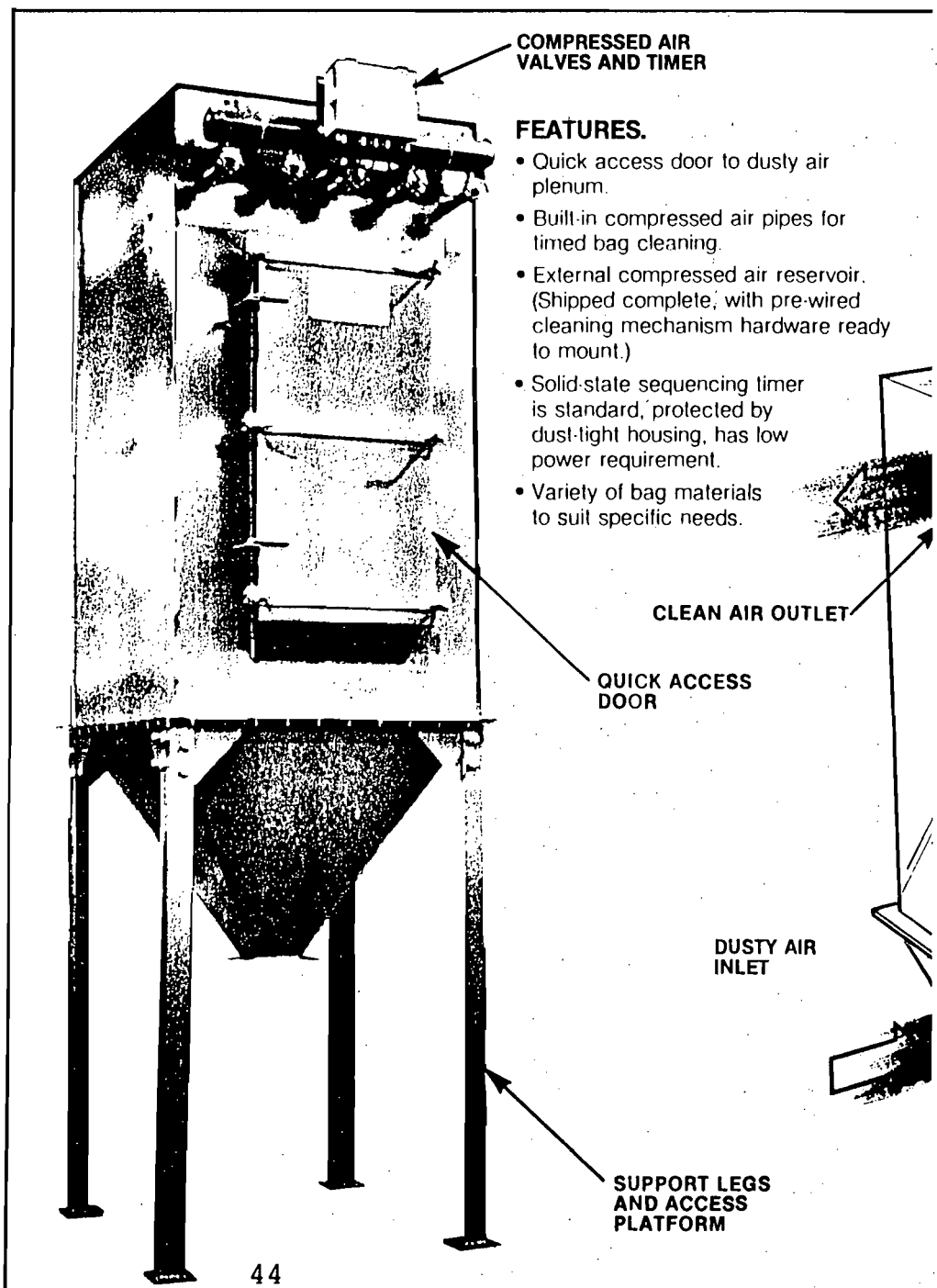
Continuous automatic cleaning by pulse jets is standard.

BV units are square units ranging in size from 17 sq. ft. of cloth in a 2 ft. sq. housing, up to 457 sq. ft. of cloth in a 4 ft. square housing.

Arrangements.

BV units can be purchased in three basic arrangements, to satisfy specific user requirements.

ARR I — Bag cleaning mechanism, welded to flanged tube-



sheet for mounting in customer's bin or silo. Unit functions as a bin/silo vent without a hopper or housing.

ARR II — Bag cleaning mechanism, tubesheet and bag housing, flanged for mounting on user's equipment.

ARR III — Bag cleaning mechanism, tubesheet, baghousing and pyramid hopper with dusty air inlet and flanged dust outlet. Unit functions as complete dust collector.

Operation.

BV units are commonly mounted on a flanged opening at the top of the user's existing bin or silo (ARR II). They can also be purchased with accompanying bag housing and pyramid hopper (ARR III). Method of operation remains basically the same, regardless of the arrangement.

(1.) Dust-laden air slows down as it enters the hopper or silo. Heavier dust particles drop out.

(2.) The air continues to rise, carrying the finer particles into the bag area.

(3.) As the air passes through the bags, dust is captured and collected on the bag exterior.

(4.) The cleaned air passes up inside the bag into the clean air plenum then is vented into the atmosphere or back to the process.

Pulse jet bag cleaning.

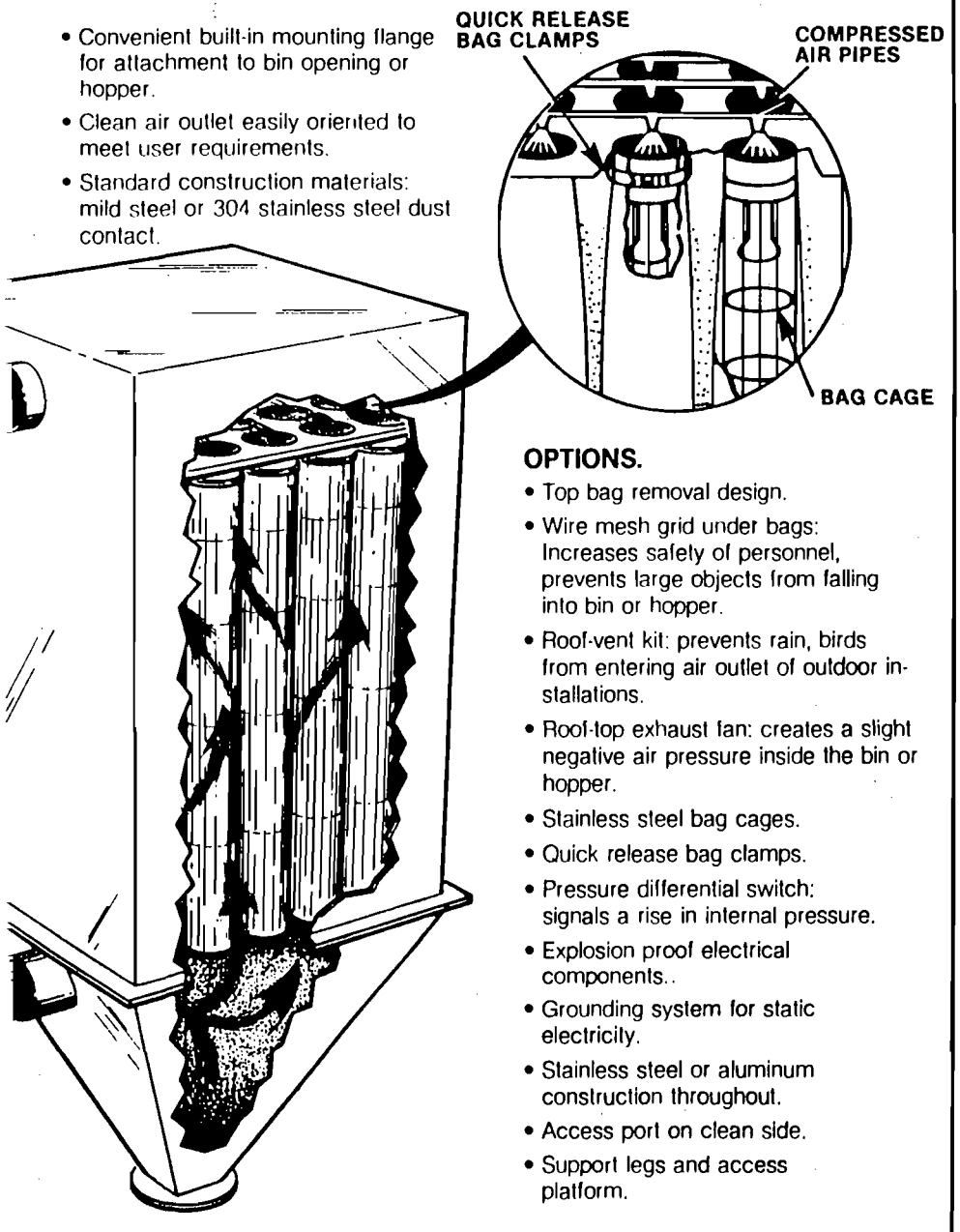
A pneumatic pulse jet system provides continuous, automatic bag cleaning.

On a timed cycle, a burst of compressed air is directed down through a venturi at the top of the bag. This induces clean air into the bag, setting up a pneumatic shockwave inside it.

The airflow through the bag is momentarily stopped, the bag is firmly flexed, causing the accumulated dust particles to drop off of the bag into the silo or collector hopper.

Since only one row of bags is cleaned at a time there is no interruption of air flow through the filter. This provides a smooth operating dust control or material handling system.

- Convenient built-in mounting flange for attachment to bin opening or hopper.
- Clean air outlet easily oriented to meet user requirements.
- Standard construction materials: mild steel or 304 stainless steel dust contact.



OPTIONS.

- Top bag removal design.
- Wire mesh grid under bags: Increases safety of personnel, prevents large objects from falling into bin or hopper.
- Roof-vent kit: prevents rain, birds from entering air outlet of outdoor installations.
- Roof-top exhaust fan: creates a slight negative air pressure inside the bin or hopper.
- Stainless steel bag cages.
- Quick release bag clamps.
- Pressure differential switch: signals a rise in internal pressure.
- Explosion proof electrical components..
- Grounding system for static electricity.
- Stainless steel or aluminum construction throughout.
- Access port on clean side.
- Support legs and access platform.

BV Series — Ordering information

Select from a wide range of models...all designed to solve the dust control problems in your bins or silos. With the range of sizes available, it's easy to match the collector size to *your* application.

Stock BV

In situations where speedy delivery is important, standard BV collectors are in stock for prompt shipment—and are offered at substantial savings.

Sanitary BV

A sanitary BV unit is also available, for food handling and other users requiring sanitary-type construction.

BV Series

BVBS—BVB stock unit, with bottom bag removal.

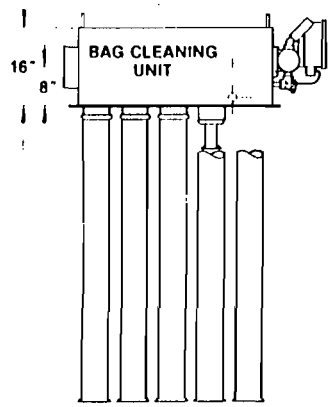
BVBC—Modified stock unit for special requirements.

BVTC—Top bag removal.

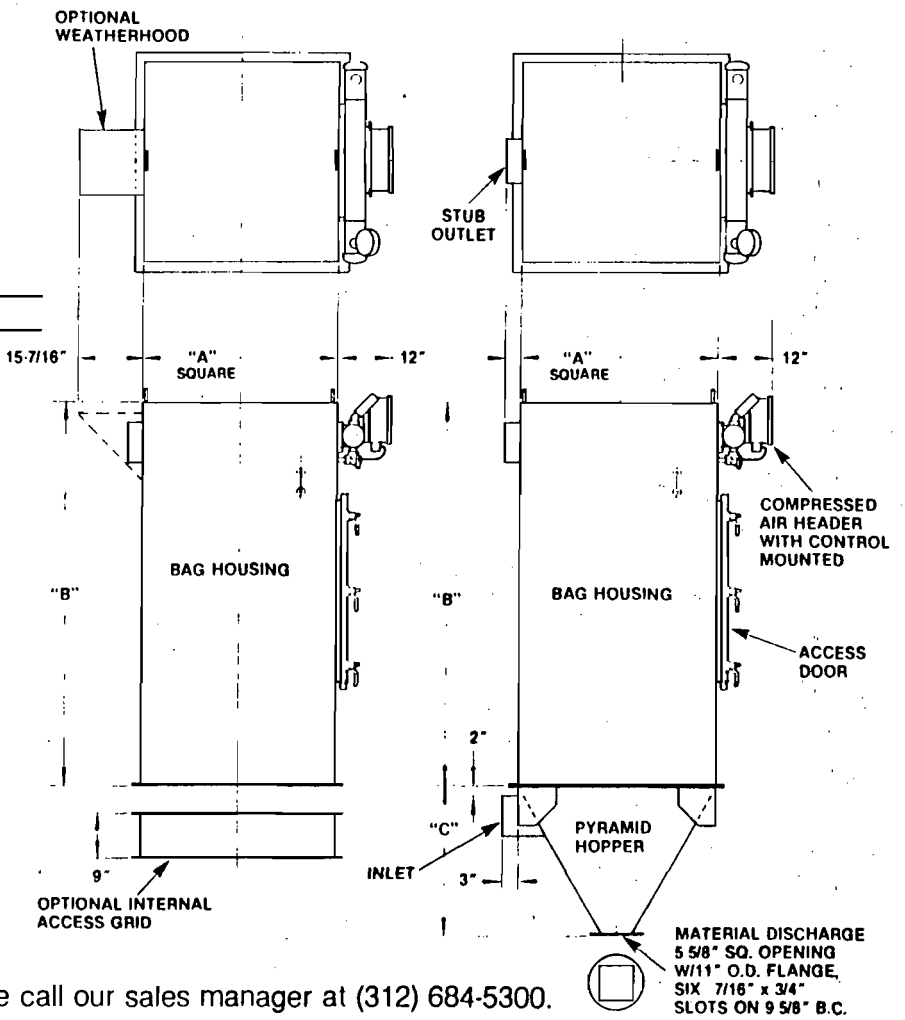
BVWC—Top bag removal with walk-in plenum.

Model No.	Filter Area (Sq. Ft.)	Comp. Air Req'd (SCFM)	"A"	"B"	"C"
18-BVB-9	17	4.0	2'0"	3'0"	1'4"
36-BVB-9	39	4.2	2'0"	4'6"	1'4"
58-BVB-9	65	4.5	2'0"	6'4"	1'4"
84-BVB-9	95	5.0	2'0"	8'7"	1'4"
18-BVB-16	30	5.2	2'8"	3'0"	1'11"
36-BVB-16	69	5.5	2'8"	4'6"	1'11"
58-BVB-16	115	5.8	2'8"	6'4"	1'11"
84-BVB-16	170	6.2	2'8"	8'7"	1'11"
18-BVB-25	47	6.3	3'4"	3'0"	2'6"
36-BVB-25	107	6.5	3'4"	4'6"	2'6"
58-BVB-25	180	6.7	3'4"	6'4"	2'6"
84-BVB-25	265	7.0	3'4"	8'7"	2'6"
100-BVB-25	318	7.5	3'4"	9'11"	2'6"
36-BVB-36	155	7.5	4'0"	4'6"	3'1"
58-BVB-36	260	8.0	4'0"	6'4"	3'1"
84-BVB-36	382	8.5	4'0"	8'7"	3'1"
100-BVB-36	457	9.0	4'0"	9'11"	3'1"

ARR I — BAG CLEANING UNIT



ARR II —, + BAG HOUSING **ARR III —, + HOUSING & HOPPER**



Ask your Flex-Kleen representative about the BV Series of bin vents/dust collectors—let Flex-Kleen help you take the nuisance out of dust control in your bins and silos. For additional information, please call our sales manager at (312) 684-5300.

Flex-Kleen
Research-Cottrell

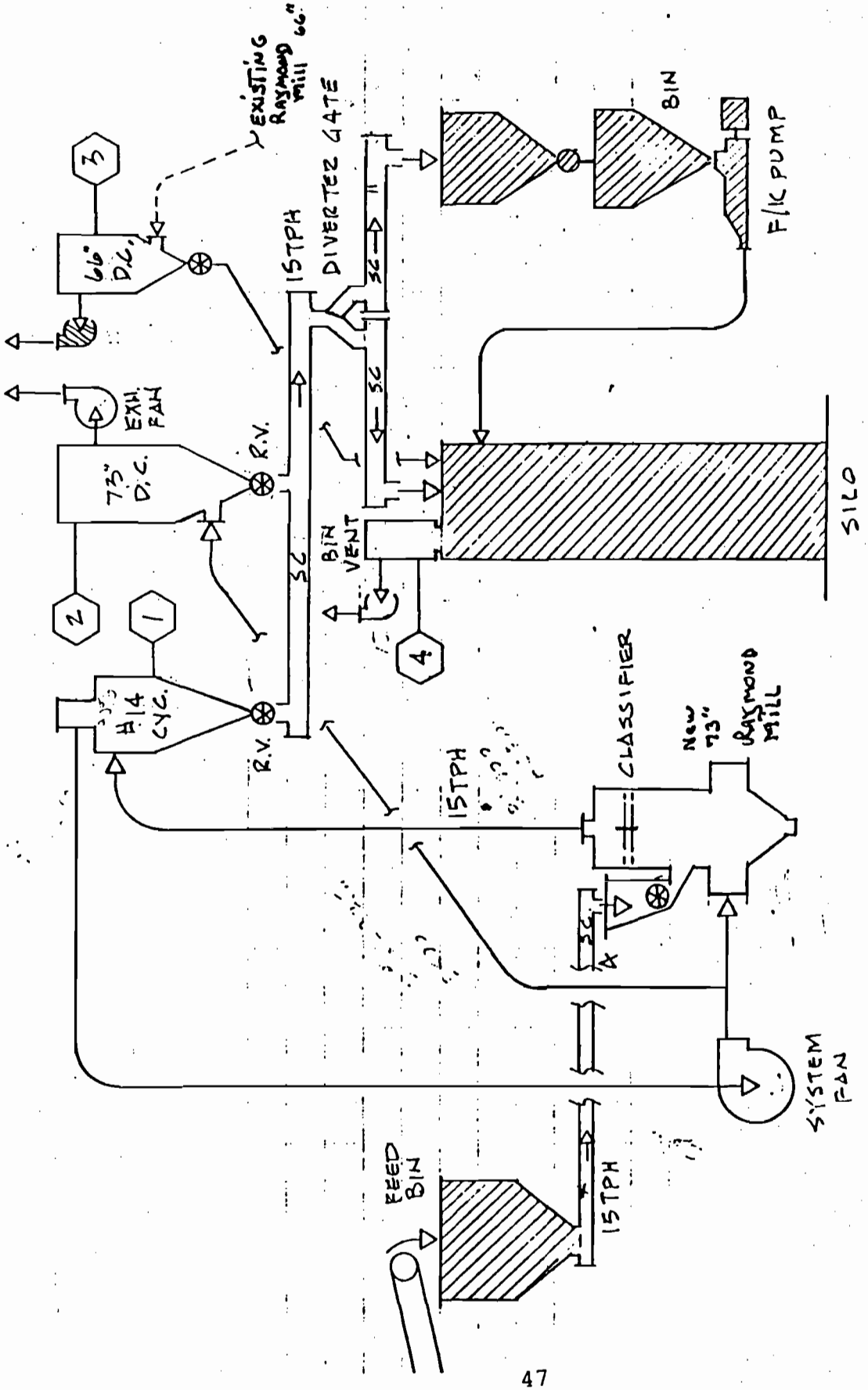
One NorthWestern Center, 165 North Canal Street, Chicago, IL 60606 (312) 648-5300/Telex 254254

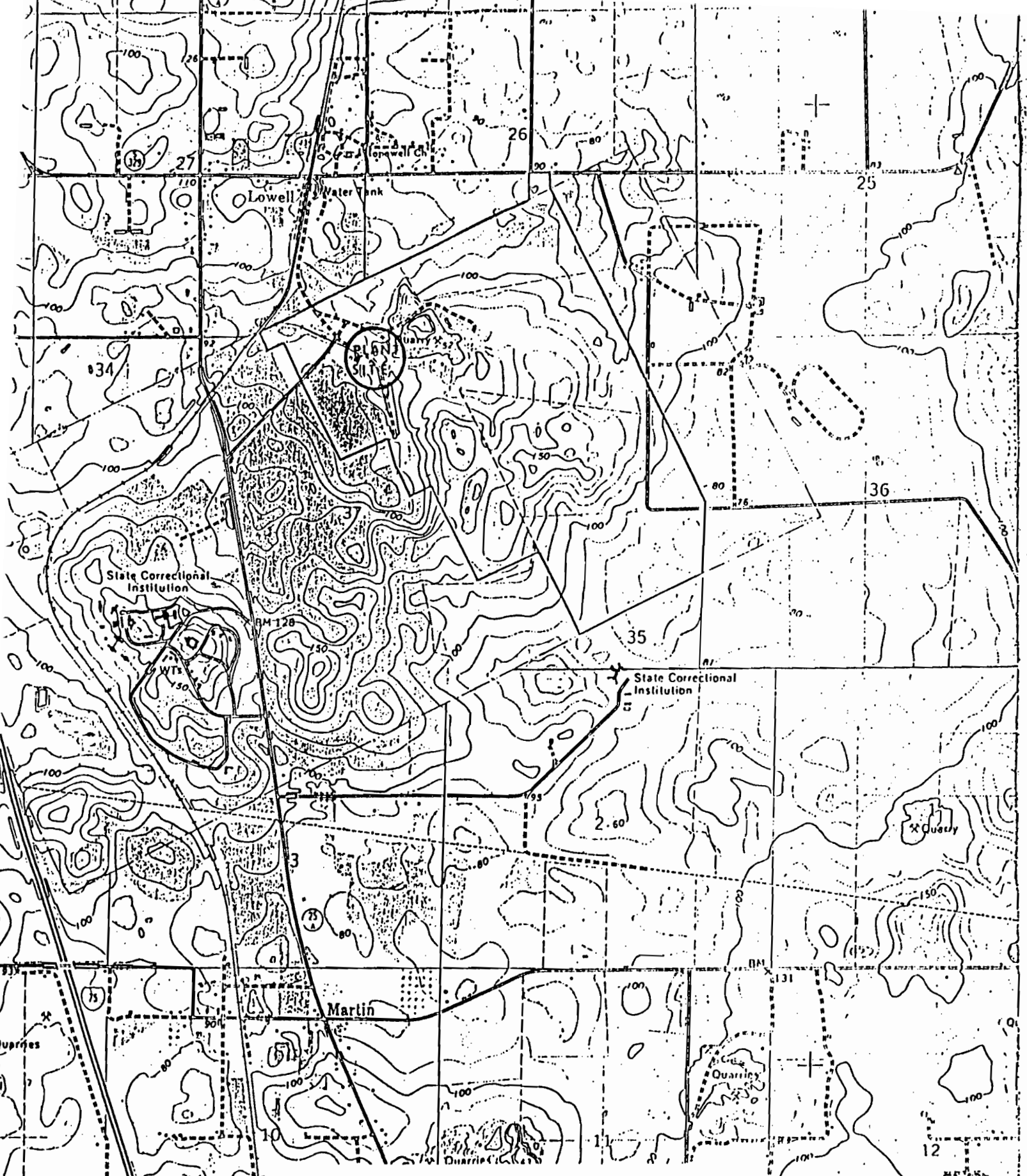
130-16-2091(7/86)

E-CON INC.
125 Powers Ferry Road
MARIETTA, GEORGIA 30067
(404) 977-7725

SOUTHERN MATERIALS CORPORATION
SECTION V
ITEM 6

FLOW DIAGRAM
PROPOSED SYSTEM





Section V-7
Southern Materials Corporation
Site Location (U.S.G.S.) Map