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: Steve Smallwood

FROM: Clair Fancy

DATE: March 5, 1991

SUBJ: Approval of Construction Permits AC 06-186997, 06-186998, 06-187000, and 06-187001
Wheelabrator North Broward, Inc.
Wheelabrator South Broward, Inc.

Attached for your approval and signature are permits prepared by the Bureau of Air Regulation for the above mentioned companies to construct lime silo and ash handling systems.

No comments were received during the public notice period.

Day 90, after which this permit will be issued by default, is March 19, 1991.

I recommend your approval and signature.

CF/MB/plm

Attachments

Needs condition #11
See Final Determination w/ typo

Wheelabrator
North & South
01/21/20 01/21/19

Run 10/11/06

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMITS

Mr. James R. Wiegner, Project Manager
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

March 12, 1991

Enclosed are construction permits AC 06-186997, 06-186998, 06-187000, and 06-187001. These permits are issued pursuant to Section 403, Florida Statutes.

Any party to these permits has the right to seek judicial review of the 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 this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copy furnished to:

I. Goldman, SE Dist.
K. Kosky, P.E.
M. Meech, Rust Int.
A. Linero, EQCB
J. Harper, EPA

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 buisness on 3-12-91.

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.

Patricia Harvey
Clerk

3-12-91
Date

Final Determination

Wheelabrator North Broward, Inc.
and
Wheelabrator South Broward, Inc.

Broward County, Florida

Permit Numbers:
AC 06-186997 (Ash Handling System)
AC 06-186998 (Lime Silo)
AC 06-187000 (Lime Silo)
AC 06-187001 (Ash Handling System)

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

March 12, 1991

Final Determination

The Technical Evaluation and Preliminary Determination for the permits to construct lime silo and ash handling systems at Wheelabrator North Broward, Inc. in Pompano Beach and Wheelabrator South Broward, Inc. in Fort Lauderdale was distributed on February 5, 1991. The Notice of Intent to Issue was published in the Fort Lauderdale News/Sun-Sentinel on February 11, 1991. Copies of the evaluation were available for public inspection at the Department's Southeast District and Tallahassee offices, and at the EQCB office in Fort Lauderdale.

The Department has received comments only from the applicant and has agreed to their request to allow them more time to conduct a stack test (30 to 90 days) and delete the simultaneous visible emissions testing requirement for lime silo loading (only one lime truck unloading instead of two lime trucks unloading simultaneously).

The Department will require a particulate and visible emissions test for the ash handling system initially. If initial testing demonstrates compliance with the standards, the applicant may request a visible emissions test in lieu of particulate stack testing on an annual basis.

The final action of the Department will be to issue construction permits AC 06-186997 and 998, and 06-187000 and 001 with minor changes.

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

Permit Numbers: AC 06-186997
AC 06-186998
Expiration Date: Feb. 28, 1992
County: Broward
Latitude/Longitude: 26°17'14"N
80°09'35"W
Project: Ash Handling System/997
Lime Silo/998

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 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 drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of ash handling system and lime silo at already approved Resource Recovery Project (PSD permit No: PSD-FL-112) which is as follows:

Ash Handling System

Emissions from the ash handling system with a process input rate of 21,435 lbs/hr of flyash and spray dryer reaction products are controlled by MAC Filter Model 120 LST 100 baghouse designed at a flow rate of 8000 ACFM.

Lime Silo

The lime silo has a capacity of 236 tons. Only one truck can be unloaded pneumatically into the lime silo at a maximum process input rate of 40,000 lbs/hr. The lime silo is equipped with Wheelabrator Air Pollution Control Model 1016, BA-108, Jet III baghouse designed at a flow rate of 1500 ACFM.

This facility is located at 2700 Hilton Road (NW 48th St.), Pompano Beach, Broward County, Florida.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application dated Sept. 26, 1990.
2. DER's incompleteness letter dated Oct. 24, 1990.
3. Wheelabrator N. B. Inc.'s response dated Nov. 19, 1990.
4. Rust Int. Corp.'s letter dated Jan. 9, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

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

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

c. Sample or monitor 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 provide the Department with the following information:

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

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

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Wheelabrator South Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

Permit Numbers: AC 06-187000
AC 06-187001
Expiration Date: Feb. 28, 1992
County: Broward
Latitude/Longitude: 26°17'14"N
80°09'35"W
Project: Ash Handling System/001
Lime Silo/000

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 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 drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of ash handling system and lime silo at already approved Resource Recovery Project (PSD permit No: PSD-FL-112) which is as follows:

Ash Handling System

Emissions from the ash handling system with a process input rate of 21,435 lbs/hr of flyash and spray dryer reaction products are controlled by MAC Filter Model 120 LST 100 baghouse designed at a flow rate of 8000 ACFM.

Lime Silo

The lime silo has a capacity of 236 tons. Only one truck can be unloaded pneumatically into the lime silo at a maximum process input rate of 40,000 lbs/hr. The lime silo is equipped with Wheelabrator Air Pollution Control Model 1016, BA-108, Jet III baghouse designed at a flow rate of 1500 ACFM.

This source is located at 4400 State Road 7, Fort Lauderdale, Broward County, Florida.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application dated Sept. 26, 1990.
2. DER's incompleteness letter dated Oct. 24, 1990.
3. Wheelabrator N. B. Inc.'s response dated Nov. 19, 1990.
4. Rust Int. Corp.'s letter dated Jan. 9, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

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

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

c. Sample or monitor 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 provide the Department with the following information:

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

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

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and

GENERAL CONDITIONS:

records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. 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 corrected promptly.

SPECIFIC CONDITIONS:

1. Wheelabrator South Broward, Inc.'s flyash handling system and the lime silo shall be allowed to operate continuously (i.e. 8760 hrs/yr).

2. Particulate emissions from the flyash handling system and lime silo baghouses shall not exceed 0.010 gr/dscf, nor 3.0 tons/year and 0.021 tons/year, respectively.

3. Visible emissions from the flyash handling system shall not exceed 5% opacity.

4. Visible emissions from the lime silo baghouse shall not exceed 5% opacity as noted in specific Condition No. 6.

5. Compliance with the particulate and visible emissions tests shall be determined within 90 days of completion of construction and initial operation using EPA Methods 1, 2, 3, 4, 5 and 9 contained in F.A.C. Rule 17-2.700. The visible emissions test for the flyash handling system shall be conducted along with the particulate tests and shall be for at least 60 minutes. The visible emissions tests

SPECIFIC CONDITIONS:

for the lime silo shall be conducted for the entire truck unloading operation. The minimum requirements for stack sampling facilities, source sampling and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. A stack drawing showing sampling locations for the Mac Filter Model 120 LST 100 baghouse shall be submitted to the Department at least 90 days prior to testing.

6. The maximum allowable emission rate for particulate matter for the lime silo is set by specific Condition No. 2. Because of the expense, and complexity of conducting a stack test on minor sources of particulate matter, the Department, pursuant to the authority granted under F.A.C. Rule 17-2.700(3)(d), hereby waives the requirement for a stack test. The alternate standard set forth by this provision establishes a visible emission not to exceed an opacity of 5%.

7. Should the Department have any reason to believe the particulate emission standard is not being met for the lime silo, the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with F.A.C. rule 17-2.700.

8. No objectionable odors from this facility will be allowed.

9. The Broward County Office of Natural Resource Protection and the Southeast District office of the DER shall be given written notice at least 15 days prior to compliance testing.

10. All conveyor loading points, transfer points and all ash processing equipment shall be properly enclosed. The facility shall be operated by personnel properly trained for the equipment herein. The Department shall be notified in writing on how the facility will be staffed and trained.

11. Reasonable precautions shall be taken during construction to prevent and control the generation of unconfined emissions of particulate matter in accordance with the provisions in F.A.C. Rule 17-2.610(3). Such reasonable precautions shall be: application of water or chemicals to control fugitive emissions from activities such as vehicular movement, loading, unloading, storage and handling, demolition, grading roads and land clearing.

SPECIFIC CONDITIONS:

12. The permittee shall comply with all applicable provisions of Florida Administrative Code Chapters 17-2 and 17-4.

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Southeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 12th day
of March, 1991

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Steve Smallwood

STEVE SMALLWOOD, P.E., Director
Division of Air Resources Management

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.

4400 S. State Rd. 7
Ft. Lauderdale, FL 33314
305-581-6606 - Tel.
305-581-6705 - Fax

RECEIVED
FEB 22 1991
DER - BAQM

February 18, 1991

Barry Andrews
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: "Notice of Intent to Issue" Proof of Publication

Dear Mr. Andrews:

Attached is the proof of publication affidavit regarding Wheelabrator North and South Broward's permit numbers - AC-06-186997, AC 06-186998, AC06-187000 and AC 06-187001. The notice was published in the Fort Lauderdale News/Sun Sentinel on February 11, 1991.

Very truly yours,

J.R. Wiegner

J.R. Wiegner
Project Manager

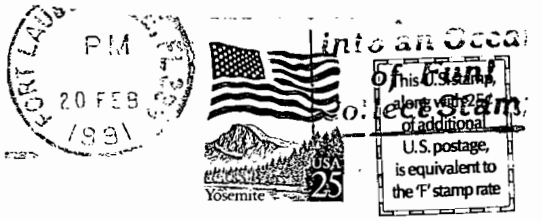
582.JRW/sab

cc: T. Kirk
C. Faller
M. Meech
T. Porter
F. Ferraro
File 7.20
02.52

M. Baig
I. Goldman, SE Dist
A. Lentro, BC NRP

Printed On Recycled Paper

WHEELABRATOR SOUTH BROWARD INC.



BARRY ANDREWS
BUREAU OF AIR REGULATION
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

BEST AVAILABLE COPY

FORT LAUDERDALE NEWS/SUN-SENTINEL
PUBLISHED DAILY
FORT LAUDERDALE, BROWARD COUNTY, FLORIDA
BOCA RATON, PALM BEACH COUNTY, FLORIDA
MIAMI, DADE COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF BROWARD/PALM BEACH/DADE
BEFORE THE UNDERSIGNED AUTHORITY PERSONALLY APPEARED ..... WHO ON OATH SAYS THAT HE/SHE IS A DULY AUTHORIZED REPRESENTATIVE OF THE CLASSIFIED DEPARTMENT OF THE FORT LAUDERDALE NEWS/SUN-SENTINEL, DAILY NEWSPAPERS PUBLISHED IN BROWARD/PALM BEACH/DADE COUNTY, FLORIDA THAT THE ATTACHED COPY OF ADVERTISEMENT, BEING A

NOTICE

IN THE MATTER OF

LIME SILOS

IN THE CIRCUIT COURT, WAS PUBLISHED IN SAID NEWSPAPER IN THE ISSUES OF
C/2/11/1X

AFFIANT FURTHER SAYS THAT THE SAID FORT LAUDERDALE NEWS/SUN-SENTINEL ARE NEWSPAPERS PUBLISHED IN SAID BROWARD/PALM BEACH/DADE COUNTY, FLORIDA, AND THAT THE SAID NEWSPAPERS HAVE HERETOFORE BEEN CONTINUOUSLY PUBLISHED IN SAID BROWARD/PALM BEACH/DADE COUNTY, FLORIDA, EACH DAY, AND HAVE BEEN ENTERED AS SECOND CLASS MATTER AT THE POST OFFICE IN FORT LAUDERDALE, IN SAID BROWARD 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/SHE HAS NEITHER PAID NOR PROMISED ANY PERSON, FIRM OR CORPORATION ANY DISCOUNT, REBATE, COMMISSION OR REFUND FOR THE PURPOSE OF SECURING THIS ADVERTISEMENT FOR PUBLICATION IN SAID NEWSPAPERS.

.....
AUTHORIZED REPRESENTATIVE

SWORN TO AND SUBSCRIBED BEFORE ME
THIS 11 DAY OF FEBRUARY
A.D. 1991

.....
(SEAL) NOTARY PUBLIC

Notary Public, State of Florida
My Commission Expires July 24, 1992
Bonded Thru Troy Fain - Insurance Inc.

27490030

State of Florida
Department of
Environmental
Regulation
**Notice of Intent
to Issue**

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Wheelabrator North Broward, Inc. (Pompano Beach Resource Recovery facility) and Wheelabrator South Browrd, Inc. (Fort Lauderdale Resource Recovery facility) to install lime silos and ash dust collection systems. The ash handling systems and the lime silos are equipped with baghouses. The North facility is located at 2700 Hilton Road (NW 48th Street), Pompano Beach and the South facility is located at 4400 South State Road 7, Fort Lauderdale. Both facilities are in Broward County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this intent to issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by the Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida
32399-2400

Department of Environmental Regulation Southeast District
1900 S. Congress Ave., Suite A
West Palm Beach, Florida
33406

Broward County Office of Natural Resource Protection
621 S. Andrews Avenue
Ft. Lauderdale, Florida
33301

Any person may send written comments on the proposed action to Mr. Barry Andrews 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.

February 11, 1991

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

February 5, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. James R. Wiegner, Project Manager
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

Dear Mr. Wiegner:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits to Wheelabrator North Broward, Inc. (Pompano Beach Resource Recovery facility) and Wheelabrator South Broward, Inc. (Fort Lauderdale Resource Recovery facility) to install lime silos and ash dust collection systems. The ash handling systems and the lime silos are equipped with baghouses. The North facility is located at 2700 Hilton Road (NW 48th Street), Pompano Beach and the South facility is located at 4400 South State Road 7, Fort Lauderdale. Both facilities are in Broward County, Florida.

Please publish the attached "Notice of Intent to Issue" in the legal ad section of a newspaper of general circulation in the area affected and submit the proof of publication to the Department within seven days of publication, along with any written comments you wish to have considered concerning the Department's proposed action, to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/MB/plm

Attachments

c: I. Goldman, SE Dist.
K. Kosky, P.E.
M. Meech, Rust Int.
A. Linero, EQCB
J. Harper, EPA

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permits by:

Wheelabrator North & South Broward, Inc. DER File No. AC 06-186997
4400 S. State Road 7 AC 06-186998
Fort Lauderdale, Florida 33314 AC 06-187000
AC 06-187001

INTENT TO ISSUE

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

The applicant, Wheelabrator North & South Broward, Inc., applied on September 27, 1990, to the Department of Environmental Regulation for permits to construct lime silos and ash dust collection systems. The ash handling systems and the lime silos are equipped with baghouses. The North facility is located at 2700 Hilton Road (NW 48th Street), Pompano Beach and the South facility is located at 4400 South State Road 7, Fort Lauderdale. Both facilities are in Broward County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that air construction permits are required 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 Intent to Issue Permits. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. 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. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. 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.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements

specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

I. Goldman, SE Dist.
K. Kosky, P.E.
M. Meech, Rust Int.
A. Linero, EQCB
J. Harper, EPA

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 2-5-91.

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.

Kim Doker — Clerk

2-5-91 — Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Wheelabrator North Broward, Inc. (Pompano Beach Resource Recovery facility) and Wheelabrator South Broward, Inc. (Fort Lauderdale Resource Recovery facility) to install lime silos and ash dust collection systems. The ash handling systems and the lime silos are equipped with baghouses. The North facility is located at 2700 Hilton Road (NW 48th Street), Pompano Beach and the South facility is located at 4400 South State Road 7, Fort Lauderdale. Both facilities are in Broward County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. 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.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southeast District
1900 S. Congress Ave., Suite A
West Palm Beach, Florida 33406

Broward County Office of
Natural Resource Protection
621 S. Andrews Avenue
Ft. Lauderdale, Florida 33301

Any person may send written comments on the proposed action to Mr. Barry Andrews 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

Wheelabrator North Broward, Inc.
and
Wheelabrator South Broward, Inc.

Broward County, Florida

Permit Numbers:
AC 06-186997 (Ash Handling System)
AC 06-186998 (Lime Silo)
AC 06-187000 (Lime Silo)
AC 06-187001 (Ash Handling System)

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

January 30, 1991

I. Application

A. Applicant

Wheelabrator North Broward, Inc.
Wheelabrator South Broward, Inc.
4400 South State Road 7
Fort Lauderdale, Florida 33314

B. Project and Location

Wheelabrator North Broward, Inc. of Pompano Beach has applied for a construction permit to install an ash handling system and a lime silo at the already approved Resource Recovery Project. A similar ash handling facility and lime silo will be installed at the Wheelabrator South Broward, Inc.'s Fort Lauderdale Resource Recovery Facility. Emissions from both silos and ash handling systems are controlled by baghouses.

C. Facility Category

The SIC Code is 9999 and the SCC Code is 9990. Wheelabrator applied for construction permits on September 27, 1990 and was deemed complete on November 19, 1990.

II. Project Description

Wheelabrator North Broward, Inc. (Pompano Beach Recovery Facility) has applied for a construction permit to install a lime silo and ash handling system (both equipped with baghouses). Wheelabrator South Broward, Inc. (Fort Lauderdale Resource Recovery Facility) also applied for a construction permit to install a similar lime silo and ash handling system (both equipped with baghouses).

Particulate emissions from the lime silo and ash handling system can reasonably be controlled by a properly designed baghouse.

III. Rule Applicability

Both facilities are located in Broward County, an area designated nonattainment for ozone (F.A.C. Rule 17-2.410) and attainment for all other criteria pollutants (F.A.C. Rule 17-2.420). Both facilities are listed on Table 500-1, Major Facility Categories (list of 28). Although both plants are major facilities, the lime silos and ash handling systems are considered to be minor sources and are not subject to Prevention of Significant Deterioration (F.A.C. Rule 17-2.500), because the increase in particulate emissions will not exceed the significant emission rates for particulate matter, Table 500-2. Both projects will be reviewed under F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements.

The particulate emissions from both baghouses (lime silo and ash handling system) will be limited to 0.010 grains/dscf as suggested by the applicant, and is based on BACT issued for similar sources by EPA's BACT/LAER clearinghouse documents. The visible emissions from both baghouses shall not exceed 5% opacity. The ash handling system baghouse being of moderate size dust collector with a designed flow of 8000 ACFM will be subject to annual particulate stack testing using EPA Method 5 along with a simultaneous visible emissions test.

The lime silo dust collector is a minor source in accordance with F.A.C. Rule 17-2.700(3)(d). The Department hereby waives the requirement of particulate stack test for this source and sets forth a visible emission limitation not to exceed 5% opacity during silo loading operations. Compliance testing of the lime silo loading operation shall be conducted using EPA Method 9 for visible emissions and shall be conducted during the entire truck unloading with two lime trucks unloading simultaneously.

IV. Source Impact Analysis

A. Emission Limitations

The particulate emissions shall not exceed 0.010 grains/dscf from both sources; and not to exceed 3.0 tons/year from ash handling system and a maximum of 0.021 tons/year from the lime silo.

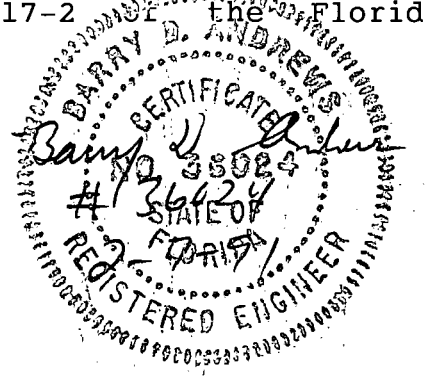
The visible emissions shall be less than 5% opacity from both sources.

B. Air Quality Impacts

The Technical Evaluation of these projects determined that ambient air monitoring or modeling would not be required to provide reasonable assurance that Florida's air quality standards would not be violated.

V. Conclusion

Based on the information provided by Wheelabrator North Broward, Inc. and Wheelabrator South Broward, Inc., the Department has reasonable assurance that the proposed construction/installation of the ash handling systems and lime silos, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.



The particulate emissions from both baghouses (lime silo and ash handling system) will be limited to 0.010 grains/dscf as suggested by the applicant, and is based on BACT issued for similar sources by EPA's BACT/LAER clearinghouse documents. The visible emissions from both baghouses shall not exceed 5% opacity. The ash handling system baghouse being of moderate size dust collector with a designed flow of 8000 ACFM will be subject to annual particulate stack testing using EPA Method 5 along with a simultaneous visible emissions test.

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IV. Source Impact Analysis

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The particulate emissions shall not exceed 0.010 grains/dscf from both sources, and not to exceed 3.0 tons/year from ash handling system and a maximum of 0.021 tons/year from the lime silo.

The visible emissions shall be less than 5% opacity from both sources.

B. Air Quality Impacts

The Technical Evaluation of these projects determined that ambient air monitoring or modeling would not be required to provide reasonable assurance that Florida's air quality standards would not be violated.

V. Conclusion

Based on the information provided by Wheelabrator North Broward, Inc. and Wheelabrator South Broward, Inc., the Department has reasonable assurance that the proposed construction/installation of the ash handling systems and lime silos, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision 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

Lawton Chiles, Governor Carol M. Browner, Secretary

PERMITTEE:
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

Permit Numbers: AC 06-186997
AC 06-186998
Expiration Date: Feb. 28, 1992
County: Broward
Latitude/Longitude: 26°17'14"N
80°09'35"W
Project: Ash Handling System/997
Lime Silo/998

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 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 drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of ash handling system and lime silo at already approved Resource Recovery Project (PSD permit No: PSD-FL-112) which is as follows:

Ash Handling System

Emissions from the ash handling system with a process input rate of 21,435 lbs/hr of flyash and spray dryer reaction products are controlled by MAC Filter Model 120 LST 100 baghouse designed at a flow rate of 8000 ACFM.

Lime Silo

The lime silo has a capacity of 236 tons. Two trucks can be unloaded pneumatically and simultaneously into the lime silo at a maximum process input rate of 40,000 lbs/hr. The lime silo is equipped with Wheelabrator Air Pollution Control Model 1016, BA-108, Jet III baghouse designed at a flow rate of 1500 ACFM.

This facility is located at 2700 Hilton Road (NW 48th St.), Pompano Beach, Broward County, Florida.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application dated Sept. 26, 1990.
2. DER's incompleteness letter dated Oct. 24, 1990.
3. Wheelabrator N. B. Inc.'s response dated Nov. 19, 1990.
4. Rust Int. Corp.'s letter dated Jan. 9, 1991.

PERMITTEE:
Wheelabrator North Broward, Inc.

Permit Numbers: AC 06-186997
AC 06-186998
Expiration Date: February 28, 1992

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

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

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

c. Sample or monitor 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 provide the Department with the following information:

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

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

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and

GENERAL CONDITIONS:

records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. 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 corrected promptly.

SPECIFIC CONDITIONS:

1. Wheelabrator North Broward, Inc.'s flyash handling system and the lime silo shall be allowed to operate continuously (i.e. 8760 hrs/yr).

2. Particulate emissions from the flyash handling system and lime silo baghouses shall not exceed 0.010 gr/dscf, nor 3.0 tons/year and 0.021 tons/year, respectively.

3. Visible emissions from the flyash handling system shall not exceed 5% opacity.

4. Visible emissions from the lime silo baghouse shall not exceed 5% opacity as noted in specific Condition No. 6.

5. Compliance with the particulate and visible emissions tests shall be determined within 30 days of completion of construction and initial operation using EPA Methods 1, 2, 3, 4, 5 and 9 contained in F.A.C. Rule 17-2.700. The visible emissions test for the flyash handling system shall be conducted along with the particulate tests and shall be for at least 60 minutes. The

SPECIFIC CONDITIONS:

visible emissions tests for the lime silo shall be conducted for the entire truck unloading operation, while both lime trucks are being unloaded simultaneously. The minimum requirements for stack sampling facilities, source sampling and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. A stack drawing showing sampling locations for the Mac Filter Model 120 LST 100 baghouse shall be submitted to the Department at least 90 days prior to testing.

6. The maximum allowable emission rate for particulate matter for the lime silo is set by specific Condition No. 2. Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, the Department, pursuant to the authority granted under F.A.C. Rule 17-2.700(3)(d), hereby waives the requirement for a stack test. The alternate standard set forth by this provision establishes a visible emission not to exceed an opacity of 5%.

7. Should the Department have any reason to believe the particulate emission standard is not being met for the lime silo, the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with F.A.C. rule 17-2.700.

8. No objectionable odors from this facility will be allowed.

9. The Broward County Office of Natural Resource Protection and the Southeast District office of the DER shall be given written notice at least 15 days prior to compliance testing.

10. All conveyor loading points, transfer points and all ash processing equipment will be properly enclosed. The facility shall be operated by personnel properly trained for the equipment herein. The Department shall be notified in writing on how the facility will be staffed and trained. The Department reserves the right to be present during staff training, particularly with respect to air pollution control equipment and monitoring systems. The Department personnel or its representative shall have access to this facility as noted in General Condition No. 7.

11. All reasonable precautions shall be taken during construction to prevent and control the generation of unconfined emissions of particulate matter in accordance with the provisions in F.A.C. Rule 17-2.610(3). These provisions are applicable to any source, including, but not limited to; vehicular movement, transportation

SPECIFIC CONDITIONS:

of materials, construction, alteration, demolition or wrecking; or industrial related activities such as loading, unloading, storing and handling.

12. The permittee shall comply with all applicable provisions of Florida Administrative Code Chapters 17-2 and 17-4.

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Southeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, P.E., Director
Division of Air Resources
Management

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:
Wheelabrator South Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

Permit Numbers: AC 06-187000
AC 06-187001
Expiration Date: Feb. 28, 1992
County: Broward
Latitude/Longitude: 26°17'14"N
80°09'35"W
Project: Ash Handling System/001
Lime Silo/000

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 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 drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of ash handling system and lime silo at already approved Resource Recovery Project (PSD permit No: PSD-FL-112) which is as follows:

Ash Handling System

Emissions from the ash handling system with a process input rate of 21,435 lbs/hr of flyash and spray dryer reaction products are controlled by MAC Filter Model 120 LST 100 baghouse designed at a flow rate of 8000 ACFM.

Lime Silo

The lime silo has a capacity of 236 tons. Two trucks can be unloaded pneumatically and simultaneously into the lime silo at a maximum process input rate of 40,000 lbs/hr. The lime silo is equipped with Wheelabrator Air Pollution Control Model 1016, BA-108, Jet III baghouse designed at a flow rate of 1500 ACFM.

This source is located at 4400 State Road 7, Fort Lauderdale, Broward County, Florida.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application dated Sept. 26, 1990.
2. DER's incompleteness letter dated Oct. 24, 1990.
3. Wheelabrator N. B. Inc.'s response dated Nov. 19, 1990.
4. Rust Int. Corp.'s letter dated Jan. 9, 1991.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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. Neither 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 is not 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, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

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

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

c. Sample or monitor 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 provide the Department with the following information:

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

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

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 for 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 involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and

GENERAL CONDITIONS:

records of all data used to complete the application for this permit. These materials shall be retained 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 dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. 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 corrected promptly.

SPECIFIC CONDITIONS:

1. Wheelabrator South Broward, Inc.'s flyash handling system and the lime silo shall be allowed to operate continuously (i.e. 8760 hrs/yr).

2. Particulate emissions from the flyash handling system and lime silo baghouses shall not exceed 0.010 gr/dscf, nor 3.0 tons/year and 0.021 tons/year, respectively.

3. Visible emissions from the flyash handling system shall not exceed 5% opacity.

4. Visible emissions from the lime silo baghouse shall not exceed 5% opacity as noted in specific Condition No. 6.

5. Compliance with the particulate and visible emissions tests shall be determined within 30 days of completion of construction and initial operation using EPA Methods 1, 2, 3, 4, 5 and 9 contained in F.A.C. Rule 17-2.700. The visible emissions test for the flyash handling system shall be conducted along with the particulate tests and shall be for at least 60 minutes. The

SPECIFIC CONDITIONS:

visible emissions tests for the lime silo shall be conducted for the entire truck unloading operation, while both lime trucks are being unloaded simultaneously. The minimum requirements for stack sampling facilities, source sampling and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. A stack drawing showing sampling locations for the Mac Filter Model 120 LST 100 baghouse shall be submitted to the Department at least 90 days prior to testing.

6. The maximum allowable emission rate for particulate matter for the lime silo is set by specific Condition No. 2. Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, the Department, pursuant to the authority granted under F.A.C. Rule 17-2.700(3)(d), hereby waives the requirement for a stack test. The alternate standard set forth by this provision establishes a visible emission not to exceed an opacity of 5%.

7. Should the Department have any reason to believe the particulate emission standard is not being met for the lime silo, the Department may require that compliance with the particulate emission standards be demonstrated by testing in accordance with F.A.C. rule 17-2.700.

8. No objectionable odors from this facility will be allowed.

9. The Broward County Office of Natural Resource Protection and the Southeast District office of the DER shall be given written notice at least 15 days prior to compliance testing.

10. All conveyor loading points, transfer points and all ash processing equipment will be properly enclosed. The facility shall be operated by personnel properly trained for the equipment herein. The Department shall be notified in writing on how the facility will be staffed and trained. The Department reserves the right to be present during staff training, particularly with respect to air pollution control equipment and monitoring systems. The Department personnel or its representative shall have access to this facility as noted in General Condition No. 7.

11. All reasonable precautions shall be taken during construction to prevent and control the generation of unconfined emissions of particulate matter in accordance with the provisions in F.A.C. Rule 17-2.610(3). These provisions are applicable to any source, including, but not limited to; vehicular movement, transportation

SPECIFIC CONDITIONS:

of materials, construction, alteration, demolition or wrecking; or industrial related activities such as loading, unloading, storing and handling.

12. The permittee shall comply with all applicable provisions of Florida Administrative Code Chapters 17-2 and 17-4.

13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the Southeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, P.E., Director
Division of Air Resources
Management

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. James R. Wiegner, Project Mgr.
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Ft. Lauderdale, FL 33314

4. Article Number
P 256 396 223

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 — Addressee
X

6. Signature — Agent
X

7. Date of Delivery

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

PS Form 3811, Apr. 1989 * U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

P 256 396 223

RECEIPT FOR CERTIFIED MAIL

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

Sent to Mr. James R. Wiegner, N. & S. Broward	
Street and No. 4400 S. State Rd. 7	
P.O., State and ZIP Code Ft. Lauderdale, FL 33314	
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: 10-26-90 Permit: AC 06-186997, -998 AC 06-187000, -001	

PS Form 3800, June 1985 * U.S.G.P.O. 1989-234-555

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.

4400 S. State Rd. 7
Ft. Lauderdale, FL 33314
305-581-6606 - Tel.
305-581-6705 - Fax

November 8, 1990

Mr. C.H. Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Broward County - Air Permit Applications
North/South Broward Resource Recovery Facilities
Lime Silo and Flyash Dust Collectors

Dear Mr. Fancy:

Please find enclosed the information requested by your office in writing on October 24, 1990, regarding the air permit applications for the lime silos and flyash dust collectors at the North and South Broward Resource Recovery Facilities. This should provide the additional information needed to continue the processing of this application.

We appreciate the expeditious review your department has given these permit applications to date and hope that this review can proceed in a timely fashion. If any additional information is required to continue this review, please feel free to call me at 305-581-6606.

Very truly yours,

J.R. Wiegner
Project Manager

448.JRW/th
encl.
cc: Mirza Baig, FDER
Paul Claerbout, NBRRF
Chuck Faller, SBRRF
Frank Ferraro, WTI-Hampton
Isidore Goldman, FDER-SE Dist.
Tom Kirk, SBRRF
Mark Meech, RUST
Rick Mulhorn, SBRRF
Tim Porter, WTI
Mark Kirchman, NBRRF
Oakley Hicks, RUST
Mark Green, RUST
Tom Henderson, BCRRO
Dave Cerrato, MPI
A. Linero, BCEQCB

KBN - Ken Konarski
904-331-9000

Date : November 6, 1990

SUBJECT: NORTH/SOUTH BROWARD RESOURCE RECOVERY FACILITIES
AIR PERMIT APPLICATIONS FOR LIME SILOS AND FLYASH DUST COLLECTORS
ADDITIONAL INFORMATION REQUESTED BY FDER (10/24/90) IN SUPPORT OF THE AIR PERMIT APPLICATIONS REFERENCED IN THE LETTER OF 10/24/90 AS FOLLOWS:

Wheelabrator North Broward Inc.
(Lime Silo) - AC 06-186998
(Flyash Dust Collector) - AC 06-186997

Wheelabrator South Broward Inc.
(Lime Silo) - AC 06-187000
(Flyash Dust Collector) - AC 06-187001

---

1. The 750 ACFM air flow rate comes from the pneumatic conveying fan that is mounted on the lime truck. This is a typical size of a fan on a lime truck.

   The air-to-cloth ratio for the Model 1016 BA-108 Jet III dust collector with one lime truck unloading will be 3.3:1. With two lime trucks unloading, the air-to-cloth ratio will be 6.6:1. This is based on 226 ft2 of cloth area.

2. The spray dryer reaction products that may enter the flyash dust collector are:
   (1) calcium sulfate - CaSO4
   (2) calcium chloride - Ca(Cl)2
   (3) calcium hydroxide - Ca(OH)2
   (4) calcium fluoride - CaF2

3. The air-to-cloth ratio for the Mac dust collector, Model 120 LST 100 is 4.9:1, based on 8000 ACFM with 1620 ft2 of cloth area.

4. Due to the small size of this equipment and the small quantity of emissions generated, these dust collectors are typically not required to be tested in the same manner as is done for the larger equipment and emission sources. These sources at these types of facilities are typically required to perform visible emission evaluations rather than use any type of test method. This, of course, does not require any actual sampling locations like those required at the baghouse outlet or spray dryer inlet.

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

October 24, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James R. Wiegner, Project Manager
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Fort Lauderdale, Florida 33314

Ref: Broward County - A.P.
North Broward and South Broward
Refuse-to-Energy Facilities
Lime Silo and Flyash Dust Collectors

Dear Mr. Wiegner:

The Department has received construction permit applications for the above referenced projects on September 27, 1990 and deemed them incomplete. Please provide the following information:

Wheelabrator North Broward, Inc.
(Lime Silo)
AC 06-186998

and

Wheelabrator South Broward, Inc.
(Lime Silo)
AC 06-187000

1. According to the information on Page 2 of both permit applications, start of construction is August 1, 1990. Please be advised that a construction permit must be obtained prior to any construction.

2. According to the process flow diagram (for both plants), two lime trucks can be unloaded into the silo at a rate of 1500 ACFM (750 ACFM, each line). Provide a basis for this flow rate of 750 ACFM. What is the air-to-cloth ratio for the wheelabrator, Model 1016 BA-108, Jet III dust collector?

Wheelabrator North Broward, Inc.
(Flyash Dust Collector)
AC 06-186997

and

Wheelabrator South Broward, Inc.
(Flyash Dust Collector)
AC 06-187001

3. See Item No. 1 listed above.

4. Please provide a list of spray dryer reaction products that are expected to enter the baghouse, besides flyash (Item A, Section III), along with a list of any airborne contaminants that will be emitted in addition to particulates (Item C, Section III) from this source.

5. What is the air-to-cloth ratio for the Mac dust collector, Model 120 LST 100?

6. Submit a stack drawing showing sampling locations for the Mac dust collector.

Processing of these applications will continue as soon as the above requested information has been received. If you have any questions, please contact Mirza P. Baig at 904-488-1344.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/MB/plm

c: Ken Kosky, P.E.
Isidore Goldman, SE Dist.
Mark Meech, Rust International
A. Linero, BCEQCB
J. Harper, EPA

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. James R. Wiegner, Project Mgr.
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Ft. Lauderdale, FL 33314

4. Article Number
P 256 396 223

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 — Addressee
X

6. Signature — Agent
X

7. Date of Delivery

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

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

P 256 396 223

RECEIPT FOR CERTIFIED MAIL

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

Sent to Mr. James R. Wiegner, N. & S. Broward	
Street and No. 4400 S. State Rd. 7	
P.O., State and ZIP Code Ft. Lauderdale, FL 33314	
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: 10-26-90 Permit: AC 06-186997, -998 AC 06-187000, -001	

PS Form 3800, June 1985 ★U.S.G.P.O. 1989-234-555

Permit Data Form

Project Source Name: South Broward Resource Recovery Facility

Type Code: AC Subcode: IE Check if: ☐ GP ☐ Exempt

Correct Fee: $400.00

Amount Received: $400.00

Amount Returned:

Permit Processor's Initial: MS Data Entry Operator's Initial: BJ

Comments:

AC 06-187000
AC 06-187001

SES BROWARD CO. L.P.
4400 SOUTH STATE HIGHWAY 7
FORT LAUDERDALE, FLORIDA 33314

NCNB National Bank of Florida
Tampa, Florida

1102

63-27
631 309

September 26, 1990

PAY Four hundred and 00/100 DOLLARS $ 400.00

TO THE ORDER OF Florida Department of Environmental Regulation

[redacted]

SES BROWARD CO. L.P.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM WVCP-3 V-4

INVOICE DATE	INVOICE NO.	DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS DISCOUNT	DEDUCTIONS FREIGHT	NET AMOUNT
9/26/90		General Ledger Acct. # 1510 South Broward Resource Recovery Facility: PA 85-21; PSD-FL-105 Minor Source Permits for Lime Silo Vent Fabric Filter Ash Conditioner Room Vent Fabric Filter	$400.00			

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To Division Offices And/Or To Other Than Two Addressees

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

Reply Optional [ ] Reply Required [ ] Info. Only [ ]
Date Due: _____ Date Due: _____

TO: Broward County Environmental Quality Control Board
Broward County Health Department
Dade County Public Health Unit
Metropolitan Dade County Environmental Resources Management
Palm Beach County Public Health Unit

FROM: I. Goldman P.E., West Palm Beach

DATE: September

SUBJECT: Application

Application File No. AC 06-187000 + AC 06-187001
Application Name South Broward Resource Recovery Fac.

This office has received the following application for:

- [X] Air Pollution Source
- [ ] Domestic Wastewater
- [ ] Drainage Well
- [ ] Hazardous Waste Facility
- [ ] Industrial Wastewater
- [ ] Injection Well
- [ ] Public Water Well/Plant
- [ ] Solid Waste Facility

for

- [X] Construction Permit
- [ ] Operating Permit
- [ ] Temporary Operating Permit

Your comments regarding completeness of the application are requested by 10/11/90.

A copy of the application has been provided to you by:

- [X] The applicant or his engineer; or
- [ ] Is attached

If you have any questions please call 407/ 964-9668

DBW:bj

WPB 116P (Rev. 5/82)

APPLICATION TRACKING SYSTEM 09/27/90

APPL NO:187000
APPL RECVD:09/27/90 TYPE CODE:AC SUBCODE:1E LAST UPDATE:09/27/90
DER OFFICE RECVD:WPB DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:SITTIG, MARK
APPL STATUS:AC DATE:09/27/90 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:50 COUNTY:06
(Y/N) N OGC HEARING REQUESTED LAT/LONG:26.17.14/80.09.35
(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:SOUTH BROWARD RESOURCE RECOVERY FAC
STREET:2700 HILTON ROAD (NW 48TH STR) CITY:POMPANO BEACH
STATE:FL ZIP:33314 PHONE:___-___-____
APPLICATION NAME:JAMES R. WIEGNER, PROJECT MANAGER
STREET:4400 S. STATE ROAD 7 CITY:FT.LAUDERDALE
STATE:FL ZIP:33314 PHONE:305-581-6606
AGENT NAME:KENNARD F. KOSKY
STREET:1034 NW 57 STR. CITY:GAINESVILLE
STATE:FL ZIP:32605 PHONE:904-331-9000
FEE #1 DATE PAID:09/27/90 AMOUNT PAID:00200 RECEIPT NUMBER:00159886

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 LAST 45 DAY LETTER WAS SENT - - - - - - - - - - - __/__/__
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:LIME SILO VENT FABRIC FILTER

(Lime Silo) Attachment I

PERMIT #: AC 06-187000 APPLICANT NAME: South Broward Resource Recovery Fac

TYPE OF PERMIT: AC SUBTYPE: IE

STATUS: ____(IS, DE, GP, EX, WI) PERMIT PROCESSING [FORM #: DER-CA 01]

OFFICE: Southeast District

DATE	TIME BEGIN	TIME END	TOTAL TIME (15 MIN)	TASK	POSITION TITLE
9/27/90	1:30	2:00	30 mins		Sr Clerk

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT (Lime Silo) South Broward Resource Recovery Fac.

PROJECT LOG NO AC 06-187000 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Receipt 159886

AMOUNT OF FEE PAID $ 200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/28/90 (Cover Letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $ _____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A __

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK _____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

APPLICATION TRACKING SYSTEM 09/27/90

APPL NO:187001
APPL RECVD:09/27/90 TYPE CODE:AC SUBCODE:1E LAST UPDATE:09/27/90
DER OFFICE RECVD:WPB DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:SITTIG, MARK
APPL STATUS:AC DATE:09/27/90 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:50 COUNTY:06
(Y/N) N OGC HEARING REQUESTED LAT/LONG:26.17.14/80.09.35
(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:SOUTH BROWARD RESOURCE RECOVERY FAC
STREET:2700 HILTON ROAD (NW 48TH STR) CITY:POMPANO BEACH
STATE:FL ZIP:33314 PHONE:___-___-____
APPLICATION NAME:JAMES R. WIEGNER, PROJECT MANAGER
STREET:4400 S. STATE ROAD 7 CITY:FT.LAUDERDALE
STATE:FL ZIP:33314 PHONE:305-581-6606
AGENT NAME:KENNARD F. KOSKY
STREET:1034 NW 57 STR. CITY:GAINESVILLE
STATE:FL ZIP:32605 PHONE:904-331-9000
FEE #1 DATE PAID:09/27/90 AMOUNT PAID:00200 RECEIPT NUMBER:00159886

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C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - __/__/__--__/__/__
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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 - - - - __/__/__--__/__/__
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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:ASH CONDITIONER ROOM VENT FABRIC FILTER

(ash conditioner)

Attachment I

PERMIT #: AC 06-187001 APPLICANT NAME: South Broward Recovery Inc.

TYPE OF PERMIT: AC SUBTYPE: IE

STATUS: C (IS, DE, GP, EX, WI) PERMIT PROCESSING [FORM #: DER-CA 01]

OFFICE: Southeast District

DATE	TIME BEGIN	TIME END	TOTAL TIME (15 MIN)	TASK	POSITION TITLE
9/27/90	2:00	2:30	30 mins		Sr Clerk

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT South Broward Resource Recovery Inc. (Ash Conditioner)

PROJECT LOG NO. AC 06-187001 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec'd (5988. AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/27/90 (cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes__ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

WHEELABRATOR SOUTH BROWARD INC.

4400 S. State Rd. 7
Ft. Lauderdale, FL 33314
305-581-6606 - Tel.
305-581-6705 - Fax

SOUTH BROWARD RESOURCE RECOVERY FACILITY

PA 85-21

PSD-FL-105

MINOR SOURCE PERMITS

LIME SILO VENT FABRIC FILTER

ASH CONDITIONER ROOM VENT FABRIC FILTER

WHEELABRATOR SOUTH BROWARD INC.

4400 S. State Rd. 7
Ft. Lauderdale, FL 33314
305-581-6606 - Tel.
305-581-6705 - Fax

September 25, 1990

Mr. Scott Benyon, Deputy Assistant Secretary
Southeast District
Florida Department of Environmental Regulation
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

Attn: Ms. Stephanie Brooks, Air Permitting Engineer
Subject: South Broward Resource Recovery Facility:
PA 85-21; PSD-FL-105
Minor Source Permits for:
Lime Silo Vent Fabric Filter
Ash Conditioner Room Vent Fabric Filter

Dear Ms. Brooks:

Please find attached four copies of permit applications for the above referenced minor sources. These sources are part of the South Broward County Resource Recovery Projects and will control dust emissions of auxiliary ash handling equipment and equipment associated with the acid-gas scrubber required by the EPA Prevention of Significant Deterioration (PSD) permit. Although the facility has been permitted under the Power Plant Site Certification Act, discussions with Buck Oven indicate that these can be submitted as minor source permits rather than amend the certification. The combined total emissions from both sources will be less than 4 tons per year.

Also enclosed is a check payable to the Florida Department of Environmental Regulation for $400.00, in accordance with the construction permit fee for the two sources, each having potential emissions [as defined in 17-2.100 (150)] of less than 25 tons per year. Please note that the potential emissions listed in the application are uncontrolled emissions which were included to provide information on control efficiency.

By copy of this letter, we are advising the EPA of the addition of these sources at the South Broward County Resource Recovery Project site. As noted above, the facility has previously received a PSD permit from the EPA.

Please call me or Kennard F. Kosky of KBN Engineering and Applied Sciences, Inc. if you have any questions regarding these permits.

Sincerely,

ORIGINAL SIGNED

James R. Wiegner
Project Manager

212.GRM/th
encl. (4)
cc: Jewell A. Harper, EPA Region IV w/enclosures
H.S. Oven, P.E., FDER Tallahassee w/enclosures
Dr. Alex Padva, FDER SEDO w/o enclosures
Joseph Lurix, FDER SEDO w/o enclosures

Mark Meech, RUST w/enclosures
Mark Kirchman, WTI-North w/enclosures
Rick Mulhorn, WTI-South w/enclosures
Thomas Henderson, Broward County w/enclosures
Dave Cerrato, Malcolm Pirnie, Inc. w/enclosures
Frank Ferraro, WTI-Hampton w/o enclosures
Tim Porter, WTI-Hampton w/enclosures

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC06-187001

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Refuse-to-Energy Facility [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Wheelabrator South Broward Inc. COUNTY: Broward

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) Ash Conditioner Room Fabric Filter

SOURCE LOCATION: Street 4400 South State Road 7 City Fort Lauderdale

UTM: East 579.600 meters North 2,883.300 meters

Latitude 26 ° 4 ' 5 "N Longitude 80 ° 12 ' 15 "W

APPLICANT NAME AND TITLE: Wheelabrator South Broward Inc.

APPLICANT ADDRESS: 4400 S. State Road 7, Fort Lauderdale, FL 33314

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Wheelabrator South Broward Inc.

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: JR Wiegner

James R. Wiegner, Project Manager
Name and Title (Please Type)

Date: 9/26/90 Telephone No. (305) 581-6606

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 judgement, that

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

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING (Cash Conditioner)

NAME OF PROJECT South Broward Resource Recovery Inc.

PROJECT LOG NO. AC 06-187001 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec'd 15988

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/27/90 (Cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK _____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

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 Kennard F. Kosky

Kennard F. Kosky
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 14996 Date: June 5, 1990 Telephone No. (904) 331-9000

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.

A fabric filter dust collector (baghouse) will be installed on the vent from the ash conditioner room to control dust.

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

Start of Construction August 1, 1990 Completion of Construction August 1, 1991

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

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

Power Plant Site Certification PA 85-21; PSD-FL-105

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? NA[1]
   a. If yes, has "offset" been applied? _____
   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
   c. If yes, list non-attainment pollutants. _____
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Yes[2]
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes[3]
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? No
   a. If yes, for what pollutants? _____
   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.

[1]Broward County is nonattainment for ozone; the applicable pollutant is volatile organic compounds (VOCs). This source will not emit VOCs.

[2]BACT for emission type is baghouse as identified by EPA's BACT/LAER clearinghouse documents.

[3]PSD applies since the total particulate matter/PM10 emissions from the resource recovery facility are greater than the significant emission amounts. PSD modeling and BACT analysis were performed for the municipal solid-waste-fired boilers. Because the emissions from this source are extremely low and well less than the significant emission levels, modeling of this source was considered unnecessary.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Flyash and			17,577	Attachment C
spray dryer				
reaction				
products				
Water			3,858	Attachment C

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

1. Total Process Input Rate (lbs/hr): 21,435

2. Product Weight (lbs/hr): 21,435

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 Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.69	3.0	17-2.610(1)(	b) 15.6	137.1	600.7	Att. C

[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.

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)
Bag Filter	Particulate	99%+	>0.3μm	Att. A
MAC Filter Model				
120 LST 100				

E. Fuels

Not Applicable

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, others--lbs/hr.

Fuel Analysis:

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 _____ Maximum _____

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

_____

_____

_____

_____

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
Horizontal Discharge
Stack Height: 60 ft. Stack Diameter: 28 in x 18 in

Gas Flow Rate: 8,000 ACFM _____ DSCFM Gas Exit Temperature: 40 to 100 °F.

Water Vapor Content: 60 to 95 % Velocity: 38.1 FPS
(relative humidity)

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (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 devices: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner
[ ] Other (specify)_____

Brief description of operating characteristics of control devices: _____

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

Flyash dust collected will be discharged via enclosed chute to the enclosed conveyor feeding the ash conditioners.

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)]
   See Attachment A
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.
   See Attachment A
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
   See Attachment A
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.)
   See Attachment B
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).
   See Attachment A
6. An 8 ½" 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.
   See Attachment C
7. An 8 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).
   See Attachment D
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
   See Attachment D

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

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

[ ] Yes [X] No

Contaminant	Rate or Concentration

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

[X] Yes [ ] No

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency down to 0.01 gr/scf (see EPA BACT/LAER Clearinghouse Documents, 1985, 1986, 1987, 1988, and 1989)

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

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency/0.01 gr/acf

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 Devices:

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 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:

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

Not Applicable

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

B. 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) _____

C. 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.

D. Applicants Maximum Allowable Emission Data

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

E. 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.

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

G. 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.

H. 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.

ATTACHMENT A

ATTACHMENT A

ASH CONDITIONER ROOM FABRIC FILTER
AIR PERMIT CALCULATIONS

A. Calculate lb/hr particulate emission using
0.01 grain/ACF (Vendor guarantee)

8000 ACF/min X 0.01 gr/acf / 7000 gr/lb X 60 min/hr =
0.69 lb/hr

B. Calculate tons/year (t/yr) particulate emissions

0.69 lb/hr X 8760 hr/yr / 2000 lb/ton =
3.00 t/yr

C. Calculate lb/hr potential (uncontrolled) emissions using
2.0 grain/ACF

8000 ACF/min X 2.0 gr/acf / 7000 gr/lb X 60 min/hr =
137.1 lb/hr

D. Calculate tons/year (t/yr) uncontrolled particulate emissions

137.1 lb/hr X 8760 hr/yr / 2000 lb/ton =
600.7 t/yr

E. Calculate exit velocity for 28" X 18" horizontal discharge

28" X 18" / 144sq in. per sq. ft= 3.5 ft2
8000 ft3/min / 3.5 ft2 / 60 sec/min = 38.1 ft/sec

By: _____
Checked: MLM

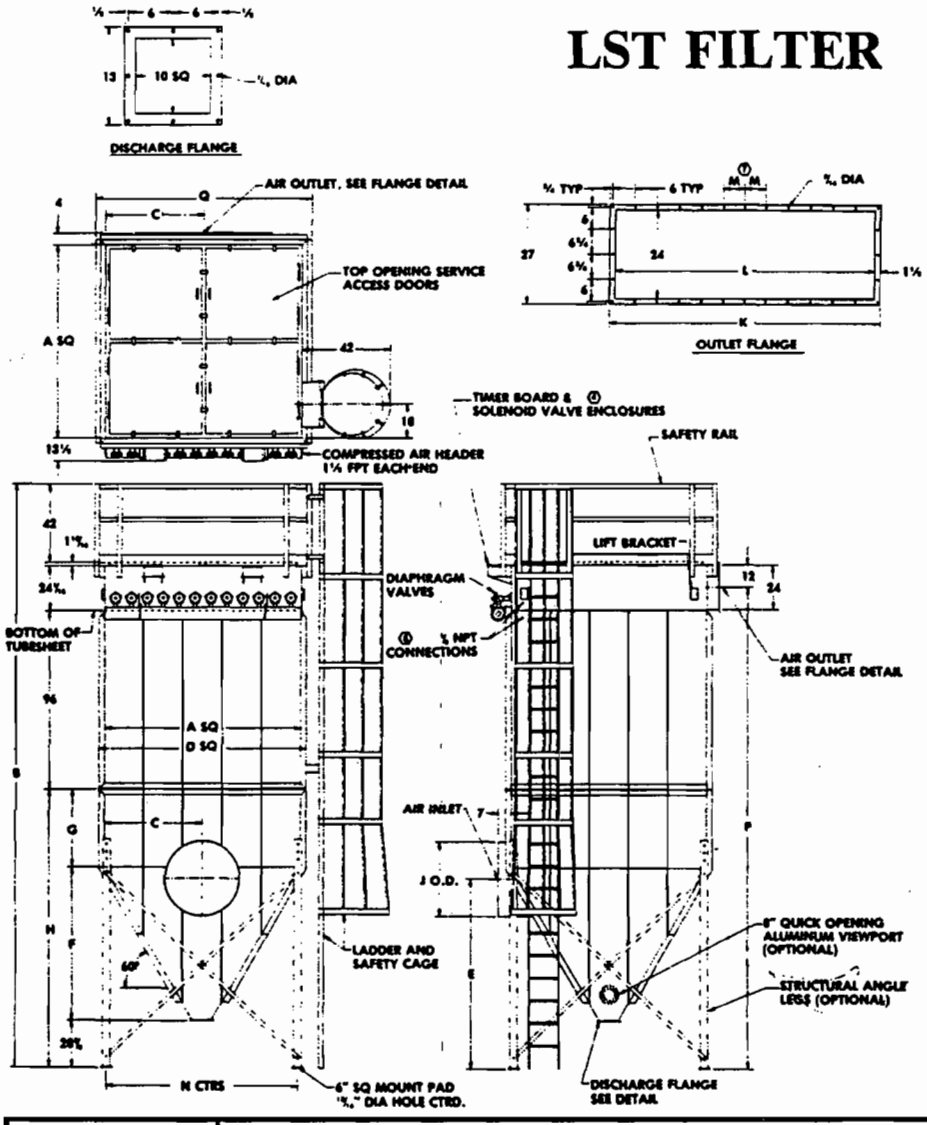
ATTACHMENT B

MAC
P.O. Box 205 • Sabetha, Kansas 66534 • Toll Free 1-800-223-2191
or in Kansas Call Collect 913-284-2191
FAX 913-284-3565

SECTION **2**

DATA SHEET
AIR VENT FILTERS
Effective Date 12-1-87
Supersedes 12-1-86

LST FILTER



STANDARD SPECS. FOR MAC MODEL LST FILTERS

Materials of Construction

12 ga. reinforced carbon steel for 17" W.C.
Full welded exterior except reinforcing, skip welded interior

Arrangement

Header at 6:00
Air outlet at 12:00
Ladder & Safety Cage at 3:00
Air inlet at 6:00
Housing and hopper are rotatable in 90° increments except that ladder and inlet cannot be on same side

Major Components

Clean air plenum with hinged top doors and welded - in tubesheet
One-Piece welded top plenum ond baghouse assy.
Flanged air outlet
Removable internal air piping
6" compressed air header
Combination venturi and bag cage
Snap band 12 oz. singed polyester bags
1" diaphragm air valves for LST64 and LST81
1½" diaphragm air valves for LST100 ond LST144
Timer board enclosure NEMA 12
Top guard rail
Ladder and safety cage
Pressure differential gauge kit
60° hopper flanged to housing
Round inlet stub

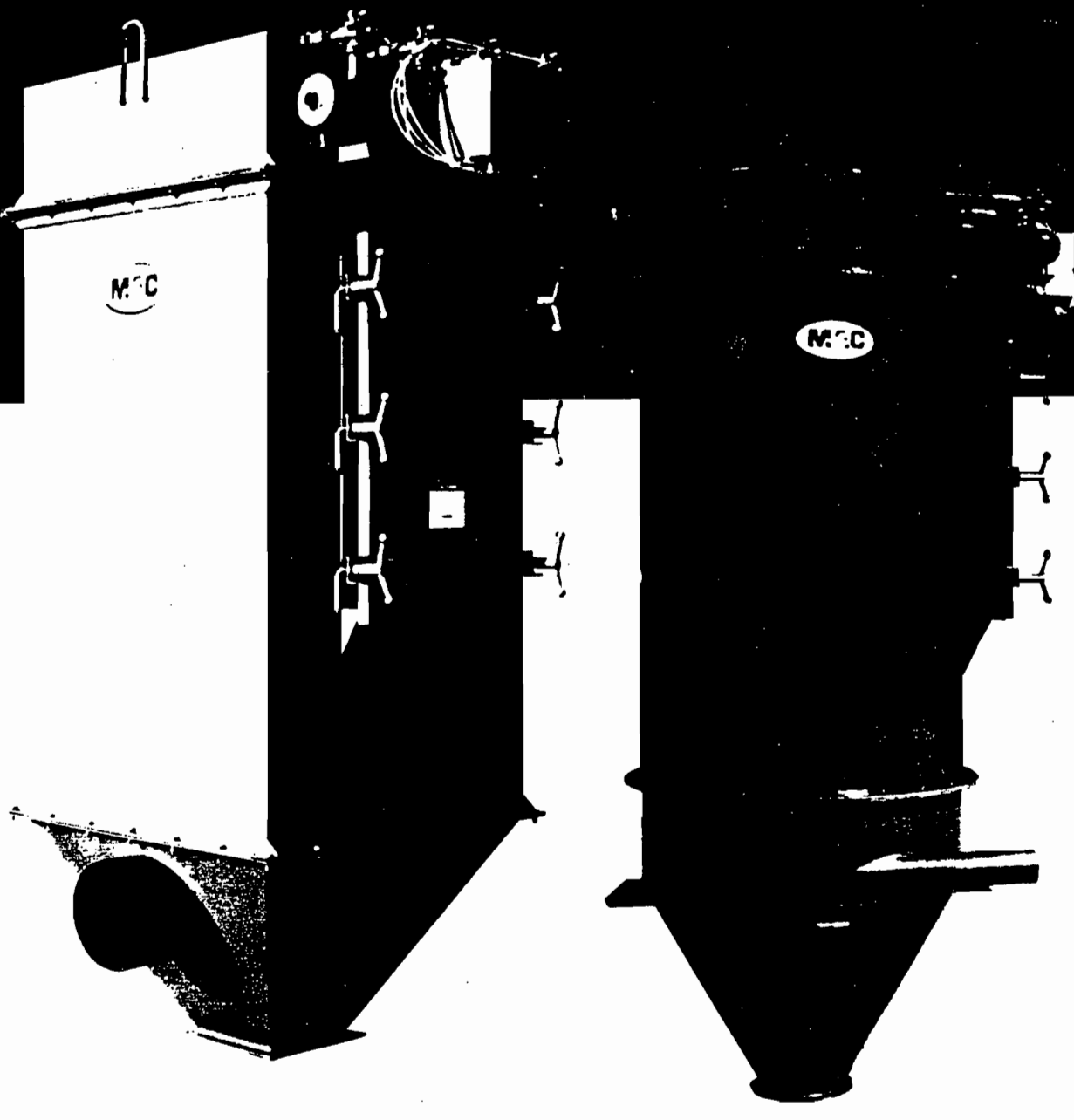
Painting

Standard cleaning and metal preparation
Exterior and clean air plenum interior primed with one coat 32x29 gray primer
Exterior to have 1 finish coat, color to be specified
Standard colors are MAC Green, Blue or White

NOTES:
1. All dimensions are in inches.
2. Const. is 12 ga. HRCS reinforced. Filters stressed for 17" W.G.
3. Filter cleaning mechanism requires clean, dry plant air at 90-100 PSIG. See schedule for SCFM cleaning air.
4. Timer board and solenoid valve enclosure requires 110 V. 60 HZ. power supply. Model LST144 has two enclosures, each of which requires a power supply. NEMA 12 enclosure standard. NEMA 4 and NEMA 9 enclosures optional.
5. Housing and hopper are installation rotatable in 90° increments.
6. Top opening service doors open from center.
7. XXXLST81 outlet flange does not have center hole.
8. ¾"NPT must have pipe plug if differential pres. ga. is not used.

DIMENSIONS AND SPECIFICATIONS	MODEL											
	96LST64	120LST64	144LST64	96LST81	120LST81	144LST81	96LST100	120LST100	144LST100	96LST144	120LST144	144LST144
CLOTH AREA	845	1062	1280	1069	1345	1620	1320	1660	2000	1901	2390	2880
NO. OF BAGS	64	64	64	81	81	81	100	100	100	144	144	144
SCFM CLEANING AIR	10	10	10	10	10	10	21	21	21	42	42	42
A	70½	70½	70½	79	79	79	87½	87½	87½	104½	104½	104½
B	262 1⅞₁₆	286 1⅞₁₆	310 1⅞₁₆	270⅞₁₆	294⅞₁₆	318⅞₁₆	277 1⅞₁₆	301 1⅞₁₆	325 1⅞₁₆	292⅞	316⅞	340⅞
C	35¼	35¼	35¼	39½	39½	39½	43¾	43¾	43¾	52¼	52¼	52¼
D	76½	76½	76½	85	85	85	93½	93½	93½	110½	110½	110½
E	82⅛₁₆	82⅛₁₆	82⅛₁₆	87⅞₁₆	87⅞₁₆	87⅞₁₆	92 3⅞₁₆	92 3⅞₁₆	92 3⅞₁₆	104½	104½	104½
F	52 1⅞₁₆	52 1⅞₁₆	52 1⅞₁₆	60⅞₁₆	60⅞₁₆	60⅞₁₆	67⅞₁₆	67⅞₁₆	67⅞₁₆	82⅛	82⅛	82⅛
G	18	42	66	18	42	66	18	42	66	18	42	66
H	99⅛₁₆	123⅛₁₆	147⅛₁₆	106⅞₁₆	130⅞₁₆	154⅞₁₆	113 1⅜₁₆	137 1⅜₁₆	161 1⅜₁₆	128½	152½	176½
J	26	26	26	30	30	30	34	34	34	40	40	40
K	35	35	35	43	43	43	51	51	51	73	73	73
L	32	32	32	40	40	40	48	48	48	70	70	70
M	4¾	4¾	4¾	2¾	2¾	2¾	6¾	6¾	6¾	5¾	5¾	5¾
N	68¾	68¾	68¾	77¼	77¼	77¼	85¾	85¾	85¾	102	102	102
P	207⅛	231⅛	255⅛	214½	238½	262½	221⅞	245⅞	269⅞	236⅞₁₆	260⅞₁₆	284⅞₁₆
Q	81¾	81¾	81¾	90¼	90¼	90¼	98¾	98¾	98¾	115¾	115¾	115¾
WEIGHT	4180	4460	4950	5030	5370	5980	5980	6370	7100	7450	7850	8750

PULSE JET FILTERS



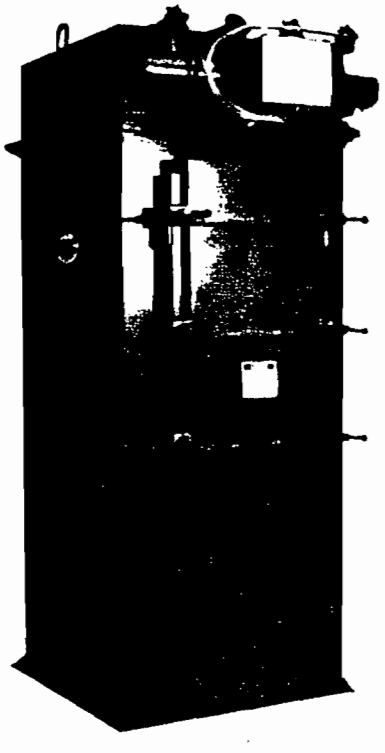
Introduction

Mac Offers 5 Models of Small, Modular Pulse Jet Filters.
Each MAC Pulse Jet Filter is designed for a variety of applications and the product line, as a whole, will meet almost any requirement for pulse jet filters in our size range. MAC has 5 models of small, modular Pulse Jet Filters. They are "AVS" (Air-Vent Square), "AVR" (Air Vent Round), "ST" (Square-Top Bag Removal), "LST" (Large Square-Top Bag Removal) and "RT" (Round-Top Bag Removal). Larger Pulse Jet Filters are available in the RPT line. The "AVR" and "RT" filters can be furnished with an optional tangential pneumatic receiver section when used in conjunction with pneumatic conveying systems.

Rely on Our Engineers to Help You Select a Filter to Meet Your Particular Application.
All MAC Pulse Jet Filters will effectively filter such materials as grain, metallurgical fume, feed, coal, flour, cement, limestone, fly ash, sugar and a variety of chemical solids. The engineers at MAC will select the proper model, size and fabric for your particular application. With our experience of over 18 years in the manufacturing business, chances are good that we have successfully handled the majority of applications in the past.

The Filter Bags in All MAC Pulse Jet Models are Cleaned by Compressed Air.
The filters operate as follows. Dust laden air enters the unit and passes from the outside to the inside of the cage-supported tubular filter bags. The dust is retained on the exterior of the filter bag while the cleaned air flows upward through the bag and exits via the venturi at the top of the bag into the clean air plenum.

Bag Cleaning is Controlled by an Electric Timer — Controlling the Cleaning of Each Row of Bags.
Upon actuation by the timer, a large capacity diaphragm valve opens the header pipe above a row of bags for a duration of 20 to 40 milliseconds. Compressed air nozzles located in the header pipe above each venturi direct the air into the individual filter bags. As the compressed air enters the venturi, filtration is momentarily stopped. As the compressed air bubble travels down the length of the bag, the fabric and the dust are accelerated away from the cage. The bag reaches its elastic limit and its movement is halted while inertia causes the dust to continue to move and thus separates it from the bag surface. The dust is discharged at the base of the filter. All models feature no-moving-parts construction and operate with minimal maintenance. The timer is completely adjustable with regard to cycle and pulse duration to minimize compressed air usage.

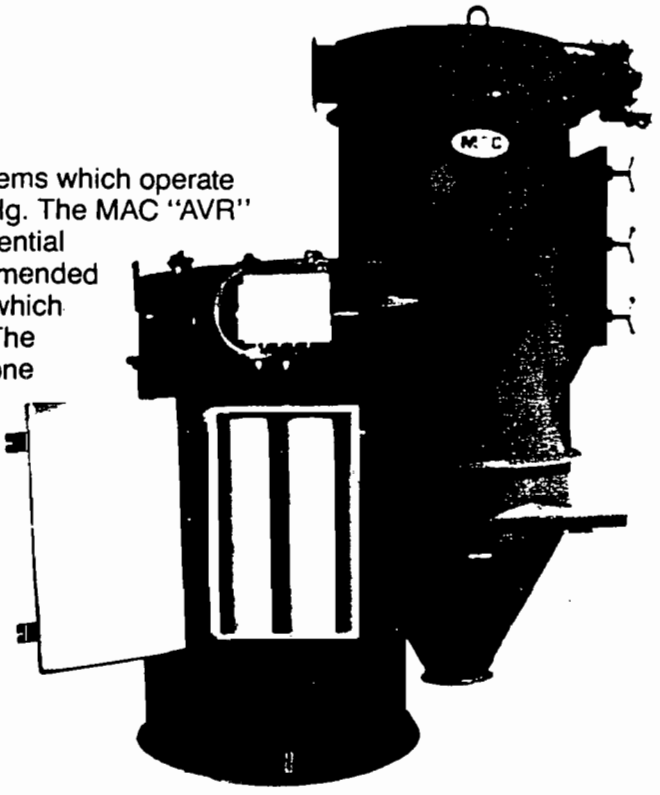


AVS

The "AVS" filter is suitable for systems where the operating static pressure ranges between -17" W.C. to +17" W.C. The "AVS" models contain up to 850 square feet of cloth and can handle up to 8500 CFM at a 10 to 1 air to cloth ratio.

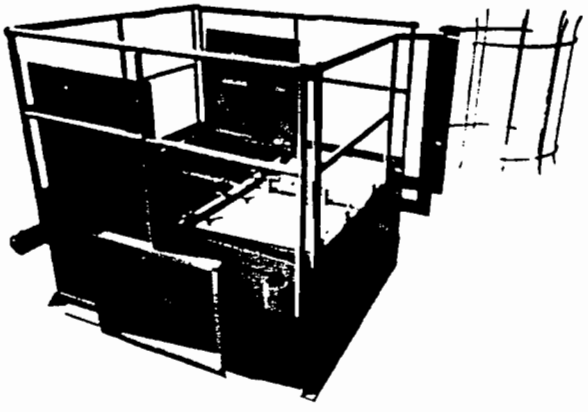
AVR

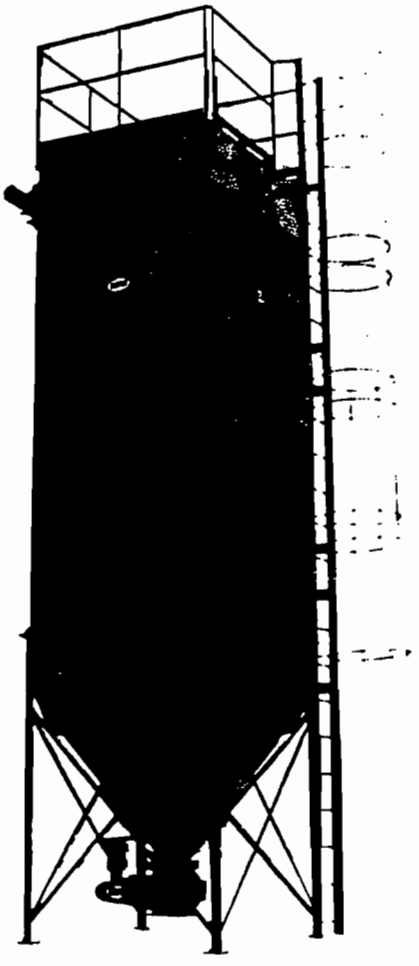
The "AVR" filter is designed for those systems which operate at higher static pressure levels, up to 17" Hg. The MAC "AVR" filter can be supplied with an optional tangential pneumatic receiver. This receiver is recommended for heavy dust loads or for applications in which the filter is used as a pneumatic receiver. The tangential inlet together with an inner cyclone ring, protects the bags from wear by abrasive and high velocity particles.



RT, ST, and LST

The "ST", "LST", and "RT" models are similar to the "AVS" and "AVR" models but are designed for top bag removal. All have clean air plenums with hinged top doors for easy bag removal. The larger "RPT" models (not illustrated) are available with walk-in plenums.





Features

Diaphragm Valves

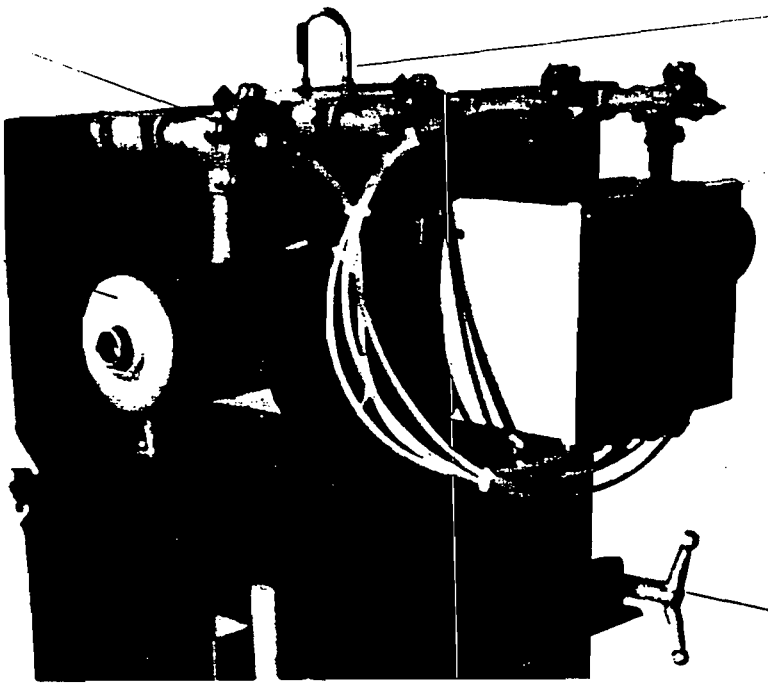
Furnished in ¾" and 1½" sizes. Designed for maximum shock wave cleaning.

Header

Provides surge capacity for the compressed air system.

Magnehelic Gauge

Monitors differential pressure across the filter bags allowing for an easy method of determining the operating condition.



Lifting lugs

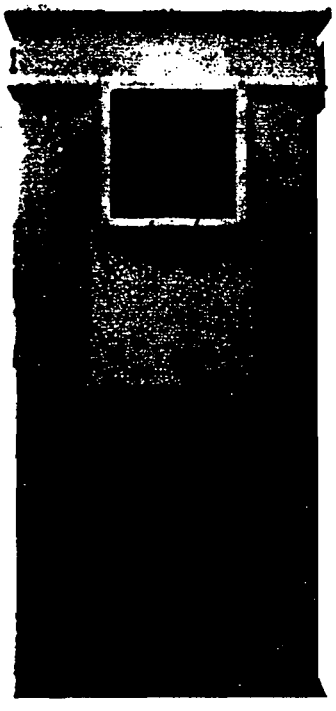
shop installed.

Timer Board

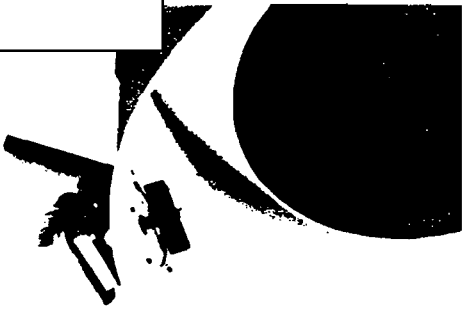
Reliable printed circuit board which provides the sequencing for cleaning the dust laden filter bags with compressed air. Features adjustable settings for increasing or decreasing the frequency or duration of the pulse.

Hinged Door with Captive Handles

Factory assembly and pre-wire–Factory wiring of the timer and solenoid valves minimizes installation cost and insures proper hook-up.



Options



Hi Entry Inlet

Used in air pollution control systems for light dust particles. The baffled hi entry inlet allows light dust particles to settle into the hopper without fighting an upward air velocity which would occur with conventional hopper entry inlets.

Pneumatic Receiver Section

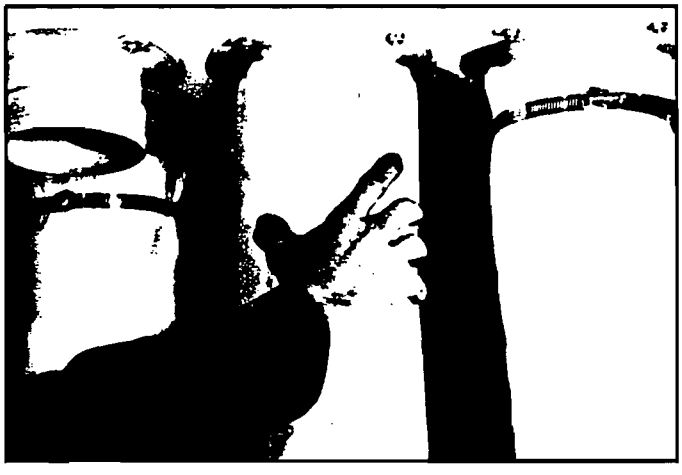
Used with "AVR" and "RT" filters in pneumatic conveying systems. Features a tangential entry into the sidewall of the cone and an inner cyclone ring to protect the filter bags against direct wear from abrasive materials and high velocity particles.

Bottom Bag Removal

The AVR and AVS pulse jet filters have bottom cage and bag removal from the interior of the housing. This is economical and convenient for small filter units.

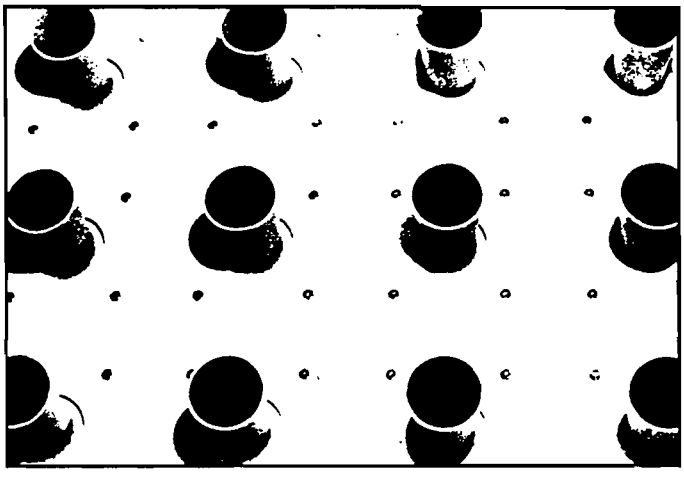
Step 1 The cage is inserted into the full length of the bag.

Step 2 The remainder of the bag is tucked into the cage, being careful not to leave any creases along the rim of the cage.



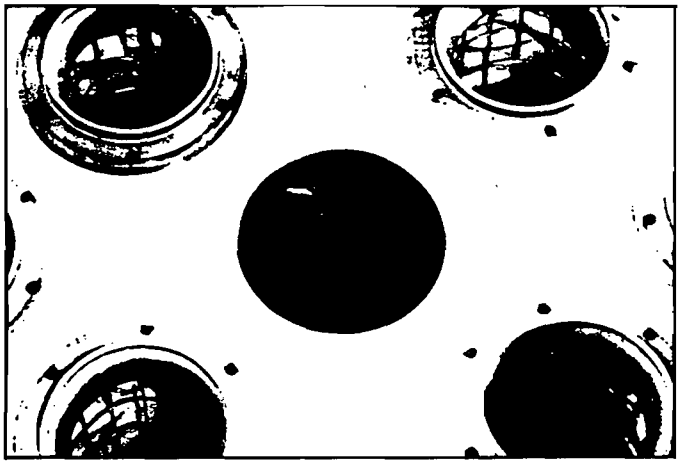
Step 3 The bag and cage are then slid onto the permanently attached bag cup.

Step 4 A positive seal is achieved by used of hose type clamps.



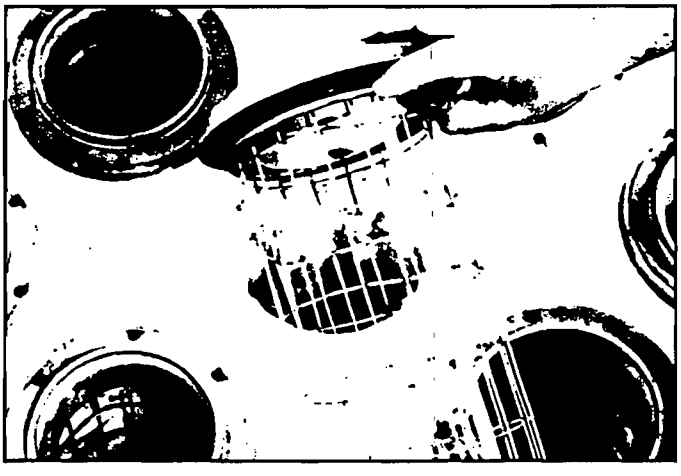
Step 5 The venturies pictured protect the top portion of the bag and assist in improving cleaning efficiency.

Top Bag Removal

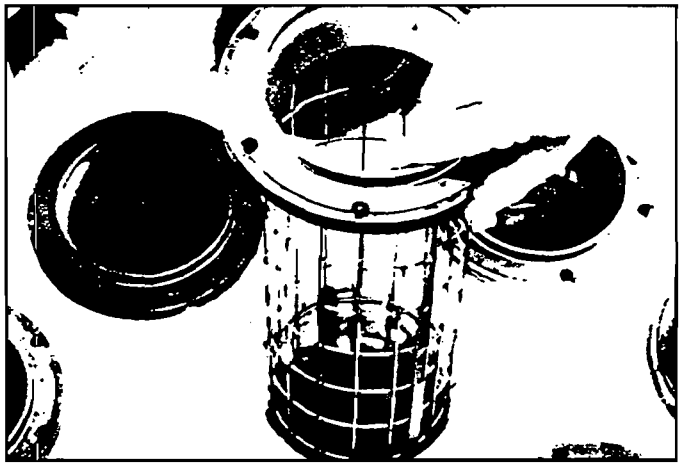


Step 1 *Entry into the dirty side of the filter is unnecessary.*

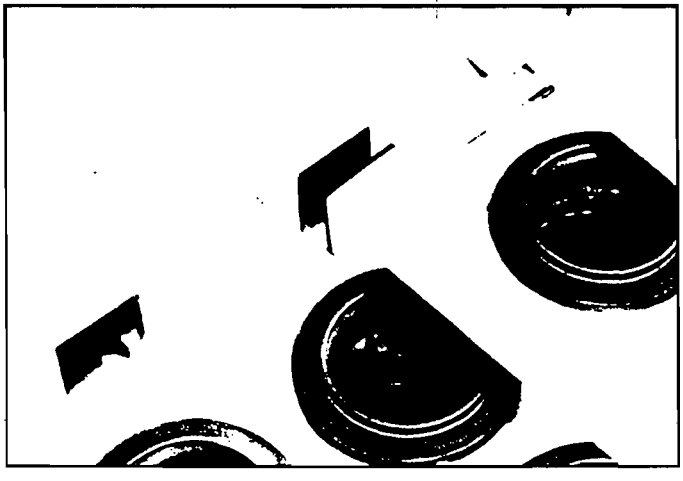
Step 2 *No tools are required.*



Step 3 Snap band with high profile lip seals secure the bag to the tube sheet.



Step 4 The cage snaps into place by merely lowering it into the bag and pushing down.



Step 5 *The header pipes are easily installed by sliding the indexed end into the bracket.*

Step 6 *The header pipes can only fit one way, thus insuring alignment of the blow nozzles.*

Specifications and Dimensions

Filter Size	Sq. Ft. Cloth Area	Measurements		
		Housing Sq.	*Overall Ht.	Discharge
18AVS9	22	26	51	6
18ST9			53	
36AVS9	44		69	
36ST9			71	
54AVS9	67		87	
54ST9			89	
72AVS9	89		105	
72ST9			107	
18AVS16	39	34½	61	
18ST16				
36AVS16	79		79	
36ST16				
54AVS16	119		97	
54ST16				
72AVS16	159		115	
72ST16				
96AVS16	209		149	
96ST16			139	
18AVS25	62	43	67	8
18ST25		25	69	
36AVS25	124	43	95	
36ST25		25	87	
54AVS25	186	43	103	
54ST25		25	105	
72AVS25	245	43	121	
72ST25		25	123	
96AVS25	332	43	145	
96ST25		25	147	
36AVS36	179	51½	98	10
36ST36		36	90	
54AVS36	269	51½	106	
54ST36		36	108	
72AVS36	358	51½	124	
72ST36		36	126	
96AVS36	478	51½	148	
96ST36		36	150	
36AVS64	318	68½	103	
54AVS64	478		121	
72AVS64	636		138	
96AVS64	850		163	
96LST64			193⅜	
120LST64	1062	70½	217⅜	
144LST64	1280		241⅜	
96LST81	1069	79	203¼	
120LST81	1345		227¼	
144LST81	1620		251¼	
96LST100	1320	87½	208⅛	
120LST100	1660		232⅛	
144LST100	2000		256⅛	
96LST144	1901	104½	222⅞	
120LST144	2390		246⅞	
144LST144	2880		270⅞	

Filter Size	Sq. Ft. Cloth Area	Measurements		
		Housing Sq.	*Overall Ht.	Discharge
18AVR7	17	28	56 9/16	6
18RT7			55 1/4	
36AVR7	34		74 9/16	
36RT7			73 1/4	
54AVR7	52		92 9/16	
54RT7			91 1/4	
72AVR7	69		110 9/16	
72RT7			109 1/4	
18AVR14	34	40	66 15/16	
18RT14			65 1/2	
36AVR14	69		84 15/16	
36RT14			83 1/2	
54AVR14	104		102 15/16	
54RT14			101 1/2	
72AVR14	139		120 15/16	
72RT14			119 1/2	
96AVR14	185		144 15/16	
96RT14			143 1/2	
36AVR21	104	47	90 15/16	8
36RT21			89 1/2	
54AVR21	156		108 15/16	
54RT21			107 1/2	
72AVR21	209		126 15/16	
72RT21			125 1/2	
96AVR21	278		150 15/16	
96RT21			149 1/2	
54AVR32	239	60	116¾	10
54RT32			115 1/2	
72AVR32	318		134¾	
72RT32			133 1/2	
96AVR32	425		158¾	
96RT32			157 1/2	
54AVR39	291	66	121 15/16	
72AVR39	388		139 15/16	
96AVR39	518		163 15/16	
72AVR52		72	145	
96AVR52	690		169	
72AVR62	617	84	155 9/16	
96AVR62	823		179 9/16	
72AVR80	797	93	163 5/16	
96AVR80	1062		187 5/16	

*This dimension is a function of the discharge dimension.

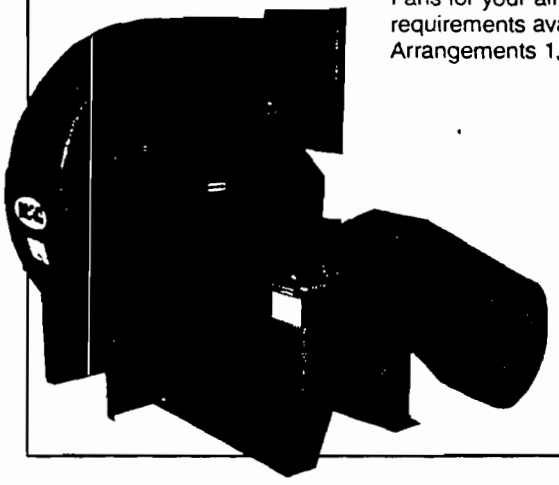
AVR and RT Pneumatic Receiver applications — Height of Receiver Section will vary depending on application and line size.

MCF Controlled Fire Filter

The MAC Controlled Fire Filter is the most advanced medium pressure air filter on the market today. The MAC MCF Filters take less horsepower to operate, offer efficient, controlled bag cleaning, require minimal maintenance, and meet the market demand for increased capacities. Patent No. 4,655,799.

Fans

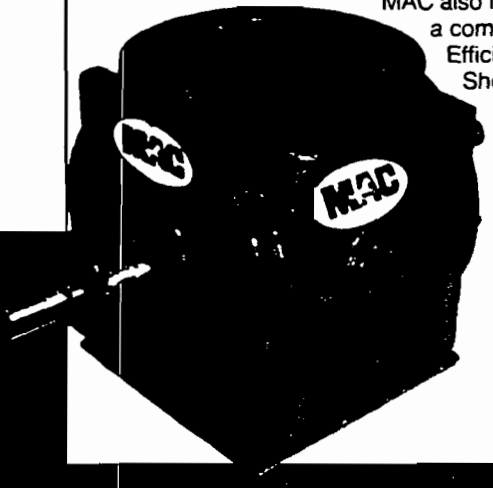
MAC has a complete line of Backward Inclined, High Static, Straight Bladed, and Material Handling Fans for your air handling requirements available in Arrangements 1, 4, and 9.



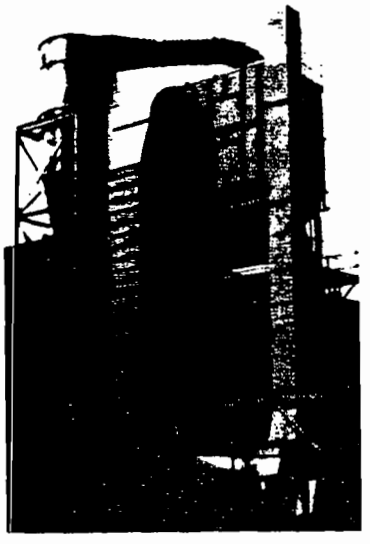
Contact MAC for your complete line of pneumatic conveying systems and components. Ask about our turnkey services available. We also offer MAC Pneumatic Service Center for quick service on new equipment or replacement parts for your penumatic conveying system.

Airlocks

Pictured is the MAC Heavy Duty Airlock. Our line of Heavy Duty Airlocks are used in a variety of industries. MAC also manufactures a complete line of High Efficiency Airlocks, No Shear Airlocks, and Light Duty Airlocks for your pneumatic conveying needs plus a complete line of airlock accessories.



RPT Pulse Jet Filter

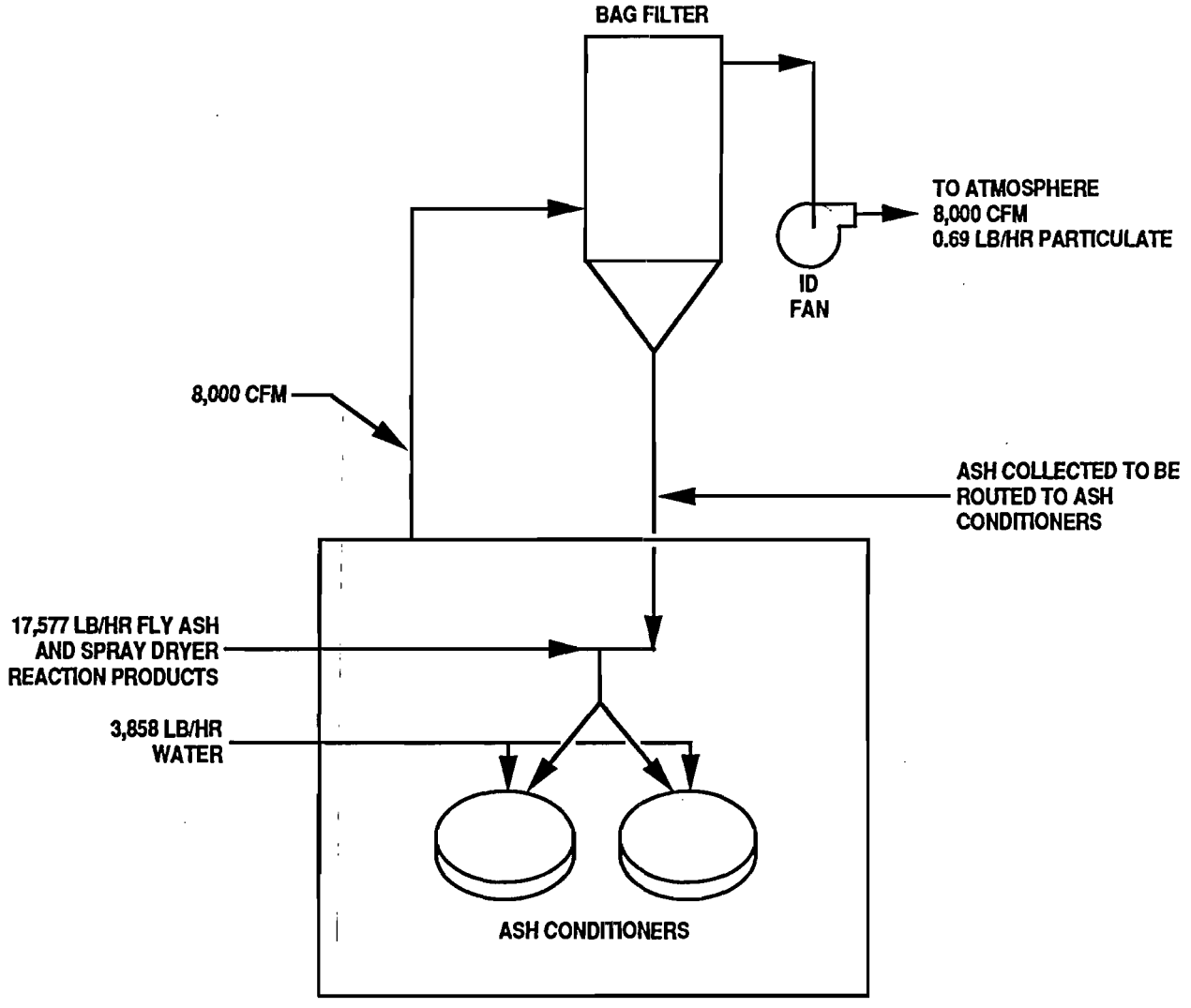


MAC also offers large pulse jet filters. Pictured is a large RPT (reverse pulse top bag removal) operated by compressed air. The RPT filter is designed to operate at a pressure or vacuum of up to 20" of water.

Mac Equipment, Inc.
P.O. Box 205
Sabetha, Kansas 66534
Call Toll Free 1-800-223-2191
or In KS Call Collect (913) 284-2191
FAX (913) 284-3565
PJF/6/89

ATTACHMENT C

KBN.12/WHEEL.2
6/90C

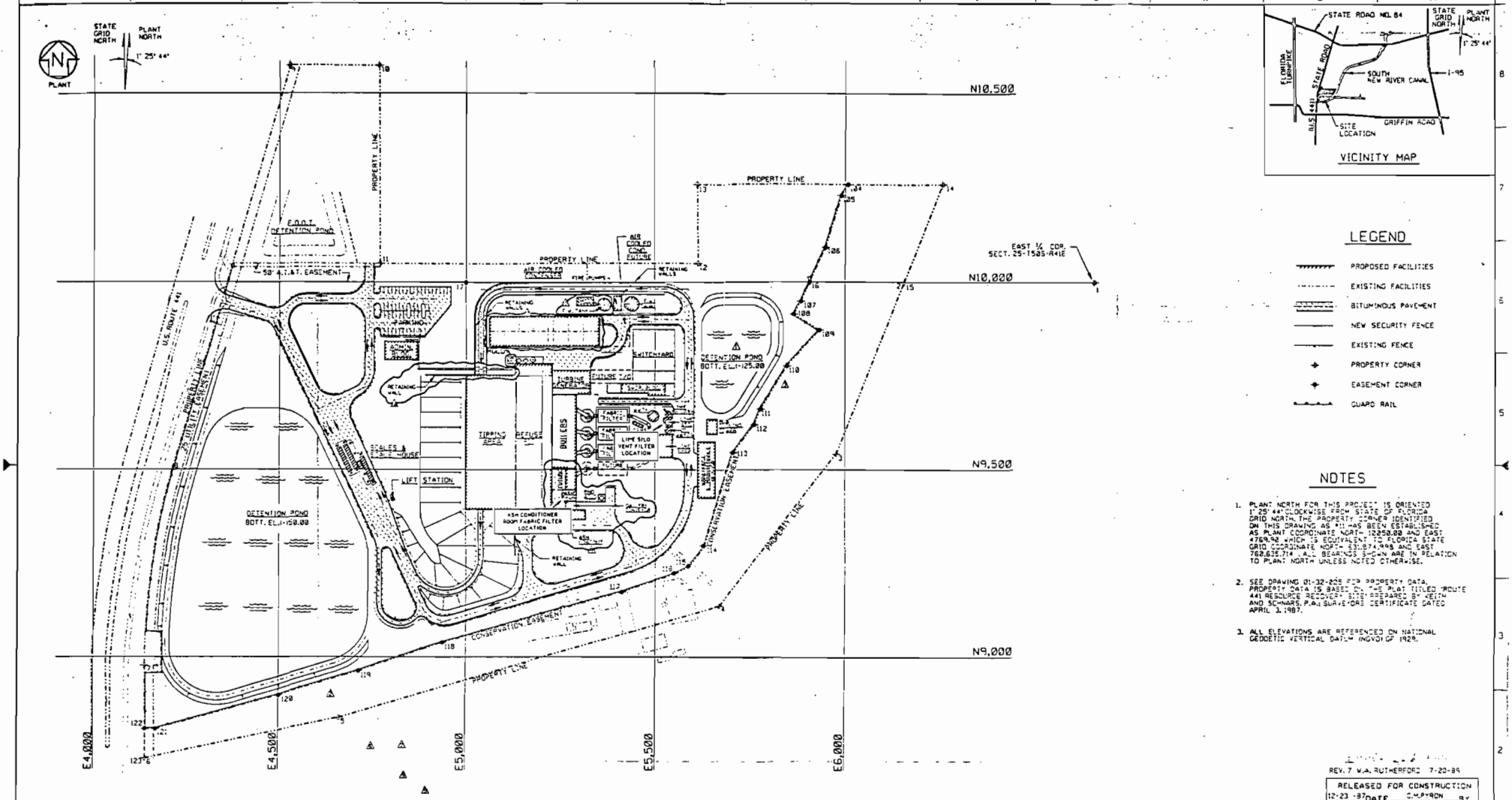


ASH CONDITIONER ROOM

ATTACHMENT C ASH CONDITIONER ROOM
DUST CONTROL FLOW DIAGRAM

KBN

ATTACHMENT D



VICINITY MAP

LEGEND

- PROPOSED FACILITIES
- EXISTING FACILITIES
- BITUMINOUS PAVEMENT
- NEW SECURITY FENCE
- EXISTING FENCE
- PROPERTY CORNER
- EASEMENT CORNER
- GUARD RAIL

NOTES

1. PLANT NORTH FOR THIS PROJECT IS ORIENTED 1° 25' 44" CLOCKWISE FROM STATE OF FLORIDA GRID NORTH. THE PROPERTY CORNER IDENTIFIED ON THIS DRAWING AS #11 HAS BEEN ESTABLISHED AS PLANT COORDINATE NORTH 12250.00 AND EAST 4769.92 WHICH IS EQUIVALENT TO FLORIDA STATE GRID COORDINATE NORTH 831,874.995 AND EAST 768,635.714 . ALL BEARINGS SHOWN ARE IN RELATION TO PLANT NORTH UNLESS NOTED OTHERWISE.
2. SEE DRAWING 01-32-205 FOR PROPERTY DATA. PROPERTY DATA IS BASED ON THE PLAT TITLED 'ROUTE 441 RESOURCE RECOVERY SITE' PREPARED BY KEITH AND SCHNARS, P.A., SURVEYORS CERTIFICATE DATED APRIL 3, 1987.
3. ALL ELEVATIONS ARE REFERENCED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.

REV. 7 W.A. RUTHERFORD 7-20-89

RELEASED FOR CONSTRUCTION
12-23-87 DATE C.M. PYRON BY

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Lowell, Massachusetts

NO.	REVISIONS	MADE	CKD.	DATE
5	GENERAL REVISION	CRJ	JDH	4-14-89
4	GENERAL REVISION	CRJ	JDH	3-31-89
3	ALIGN/REVISED FOR APPROVAL TO	PSB	JDH	1-18-89
	SUPERSEDE ALL PREVIOUS ISSUES	PSB	JDH	1-18-89
2	RELOCATED ENTRANCE ROAD & FENCE		JDH	8-3-88
1	REVISED POND ELEV.	PSB	JDH	6-7-88
	NORTH BUILDING & DETENTION POND	PSB	JDH	5-17-88

01-32-205 PROPERTY DATA

SCALE: 1" = 100' DATE

PLOT PLAN

SOUTH BROWARD RESOURCE RECOVERY FACILITY

Fluor (International) Corporation Birmingham, Alabama
Contract 21-29398

DRAWING NUMBER 01-32-001 REV. NO. 8

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT: South Broward Resource Recovery Fac. (Lime Silo)

PROJECT LOG NO: AC 06-187000 COUNTY: Broward

DATE APPLICATION RECEIVED: 9/27/90 30-DAY (HW 60-DAY) DATE: 10/26/90

Rec# 159886

AMOUNT OF FEE PAID: $200.00 COPIES OF PLANS: _____

COPIES OF APPLICATION: 4 COPIES OF SPECIFICATIONS: _____

COPIES TO: CORPS__; LOCAL PROGRAM ✓; TALLAHASSEE__; DNR__; OTHER__

9/27/90 (Cover Letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO: Sittig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes__ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE_____; N/A _____

WATER MANAGEMENT COMMENTS (DATE)_____; N/A _____

LOCAL PROGRAM APPROVAL (DATE)_____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES)_____ ; N/A _____

APPLICATION COMPLETION DATE_____ > DEFAULT DATE_____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION:_____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE:_____

INTENT: PROGRAM HEAD_____ PROGRAM ADM._____

FINAL DRAFT REVIEWED BY:_____ DATE:_____

FINAL DRAFT APPROVED BY:_____ DATE:_____

****

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC 06-187000

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Municipal Solid Waste Incinerator [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Wheelabrator South Broward Inc. COUNTY: Broward

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) Lime Silo Vent Filter

SOURCE LOCATION: Street 4400 South State Road 7 City Fort Lauderdale

UTM: East 579,600 meters North 2,883,300 meters

Latitude 26 ° 4 ' 5 "N Longitude 80 ° 12 ' 15 "W

APPLICANT NAME AND TITLE: Wheelabrator South Broward Inc.

APPLICANT ADDRESS: 4400 S. State Road 7, Fort Lauderdale, FL 33314

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Wheelabrator South Broward Inc.

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: JRW signed

James R. Wiegner, Project Manager
Name and Title (Please Type)

Date: 9/26/90 Telephone No. (305) 581-6606

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 judgement, that

[1]See Florida Administration 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 Kennard F. Kosky

Kennard F. Kosky
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 14996 Date: June 5, 1990 Telephone No. (904) 331-9000

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.

A vent filter will be installed on the lime silo to control dust during truck unloading of pebble lime.

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

Start of Construction August 1, 1990 Completion of Construction August 1, 1991

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.)

$15,000

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

Power Plant Site Certification PA 85-21; PSD-FL-105

E. Requested permitted equipment operating time:[1] hrs/day ____; days/wk ____; 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? NA[2]
   a. If yes, has "offset" been applied? _____
   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
   c. If yes, list non-attainment pollutants. _____
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Yes[3]
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes[4]
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? No
   a. If yes, for what pollutants? _____
   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.

[1]Air is displaced through the vent filter only when lime trucks are being pneumatically unloaded. This will not be a continuous operation. Each truck will require approximately 2½ hours to unload. Five to seven trucks will be unloaded each week.

[2]Broward County is nonattainment for ozone; the applicable pollutant is volatile organic compounds (VOCs). This source will not emit VOCs.

[3]BACT for emission type is baghouse as identified by EPA's BACT/LAER clearinghouse documents.

[4]PSD applies since the total particulate matter/PM10 emissions from the resource recovery facility are greater than the significant emission amounts. PSD modeling and BACT analysis were performed for the municipal solid-waste-fired boilers. Because the emissions from this source are extremely low and well less than the significant emission levels, modeling of this source was considered unnecessary.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Pebble Lime			40,000 max*	Attachment C

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

1. Total Process Input Rate (lbs/hr): 40,000

2. Product Weight (lbs/hr): 40,000

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 Emission **		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.13***	0.021	17-2.610(1)(b)	23	25.7	4.2	Att. C

[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.

* Each truck will unload at approximately 20,000 lb/hr. Maximum rate will be 40,000 lb/hr if two trucks unload at the same time.
**Based on 5 trucks of lime being received per week with each truck requiring 2½ hours to unload.
***Based on two trucks unloading simultaneously.

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)
Silo Vent Filter	Particulate	99%+	>0.3μm	Att. A
Wheelabrator Air				
Pollution Control				
Model 1016 BA-108				
Jet III				

E. Fuels

Not Applicable

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, others--lbs/hr.

Fuel Analysis:

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 _____ Maximum _____

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

_____

_____

_____

_____

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
Downward Discharge
Stack Height: 102 ft. Stack Diameter: 32"x12" ft.

Gas Flow Rate: 1,500 ACFM _____ DSCFM Gas Exit Temperature: 40 to 100 °F.

Water Vapor Content: 60 to 95 % Velocity: 9.4 FPS
(relative humidity)

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Patholog-ical)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Inciner-ated							
Uncon-trolled (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 devices: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner
[ ] Other (specify)_____

Brief description of operating characteristics of control devices: _____

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

Lime dust collected in the filter will be discharged into lime silo.

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)]
   See Attachment A
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.
   See Attachment A
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
   See Attachment A
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.)
   See Attachment B
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).
   See Attachment A
6. An 8 ½" 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.
   See Attachment C
7. An 8 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).
   See Attachment D
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
   See Attachment D

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

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

[ ] Yes [X] No

Contaminant	Rate or Concentration

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

[X] Yes [ ] No

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency down to 0.01 gr/scf (see EPA BACT/LAER Clearinghouse Documents, 1985, 1986, 1987, 1988, and 1989)

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

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency/0.01 gr/acf

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 Devices:

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 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:

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

Not Applicable

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

B. 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) _____

C. 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.

D. Applicants Maximum Allowable Emission Data

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

E. 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.

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

G. 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.

H. 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.

ATTACHMENT A

LIME SILO VENT FILTER
AIR PERMIT CALCULATIONS

A. Calculate lb/hr particulate emission using 0.01 grain/ACF and assuming two trucks maximum unloading pneumatically at 750 ACF/min each (1500 ACFM total).

1500 ACF/min X 0.01 gr/acf / 7000 gr/lb X 60 min/hr = 0.13 lb/hr

B. Calculate tons/year(t/yr) particulate emissions Using 1,493 lb/hr normal lime usage (from WAPC mass balances) for three boilers.

1493 lb/hr X 24 hr/day X 7 days/week / 2000 lb/ton = 125 tons/week lime usage

Using 25 ton capacity trucks

125 tons/week / 25 tons/truck = 5 trucks/week

Using 750 ACF/min per truck and 2.5 hours to unload each truck

750 ACF/min X 0.01 gr/acf / 7000 gr/lb X 150 min/truck = 0.16 lb/truck

0.16 lb/truck X 5 trucks/week X 52 weeks/yr / 2000 lb/ton = 0.021 tons/yr

C. Calculate lb/hr potential (uncontrolled) emissions using 2.0 grain/ACF and assuming two trucks maximum unloading pneumatically at 750 ACF/min each (1500 ACFM total).

1500 ACF/min X 2.0 gr/acf / 7000 gr/lb X 60 min/hr = 25.7 lb/hr

D. Calculate tons/year(t/yr) uncontrolled particulate emissions using 750 ACF/min per truck and 2.5 hours to unload each truck

750 ACF/min X 2.0 gr/acf / 7000 gr/lb X 150 min/truck = 32.1 lb/truck

32.1 lb/truck X 5 trucks/week X 52 weeks/yr / 2000 lb/ton = 4.2 tons/yr

E. Calculate exit velocity for 12" X 32" downward discharge

12" X 32" / 144sq in. per sq. ft= 2.67 ft2
1500 ft3/min / 2.67 ft2 / 60 sec/min = 9.4 ft/sec

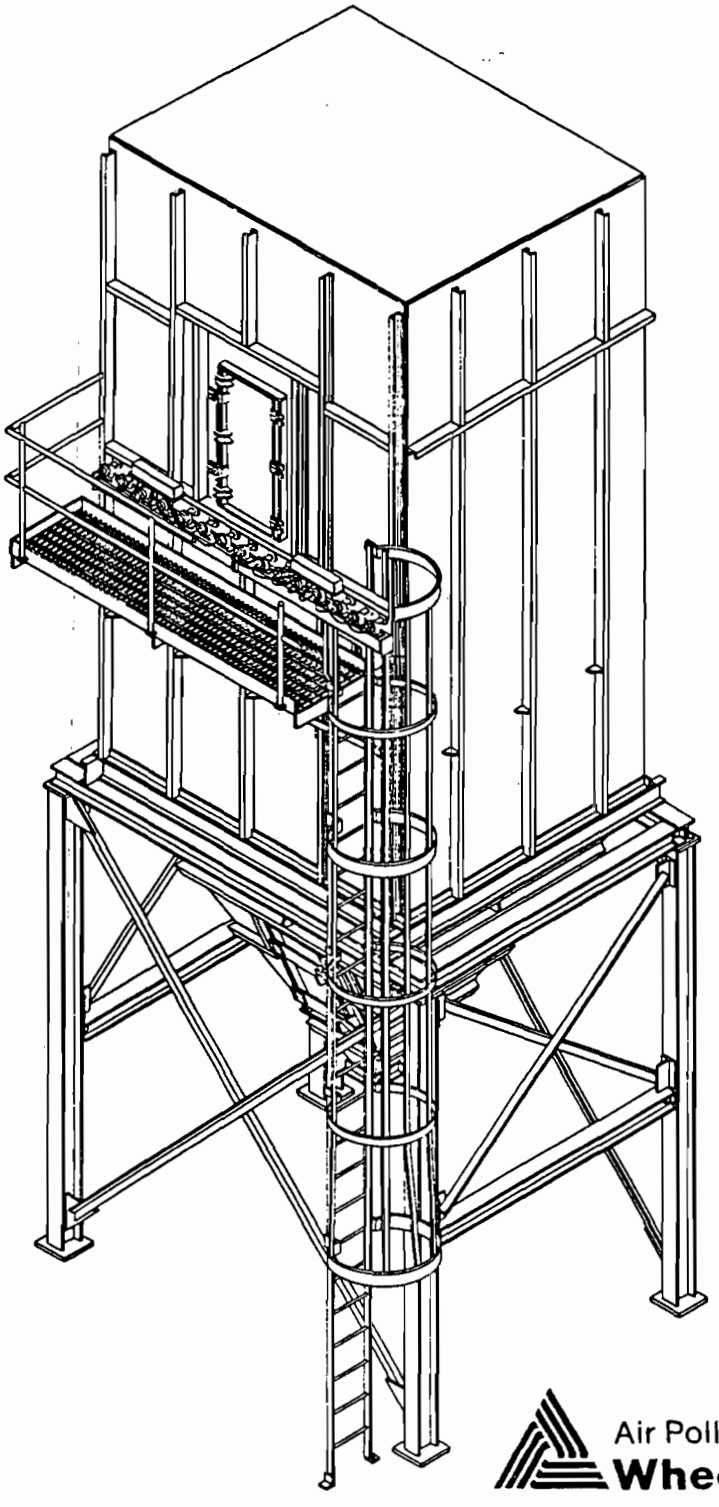
By:
Checked:

ATTACHMENT B

1-22-82

JET III™

THE NEW GENERATION OF DUST COLLECTORS



Air Pollution Control Division
Wheelabrator-Frye Inc

JET III

The new generation of dust collectors

Someday, all dust collectors may offer the benefits of JET III:
- High collection efficiencies
- Low first cost
- Low maintenance cost
- Low operating cost

Why wait for someday?

JET III is a wholly-new design in pulse-jet dust collectors, offering the high collection efficiencies required by increasingly stringent environmental regulations, plus true economy for the plant owner. Economy is achieved by a new, state-of-the-art system designed to reduce maintenance, labor, parts and energy costs.

Available in a full range of standard cloth areas, JET III also offers flexible sizing and efficient, space-saving installation. Variation of the tube sheet/bag length can be tailored to a particular application and dust condition. This flexibility enables a relatively small-sized housing to be employed on large-volume jobs, lowering capital costs. Smaller modules (1,140 to 5,570 ft^2 of cloth area) are square in plan, and large-volume modules (4,910 to 12,800 ft^2 of cloth area) are rectangular. Both designs feature specially-designed inlet connections for efficient gas flow and long filter bag life.

Access to the unit is provided by an integral, full-height, weather-proof, walk-in, clean air plenum. Where heat or other factors present special problems, or where bags in excess of 144 inches long are used, manually operated, hinged roof doors are available.

JET III housings are constructed of 10-gauge hot rolled sheet steel stiffened for 20" WG. All JET III units are completely fabricated before shipment for easy, economical field erection. Square modules are shipped as assembled, one-piece units, complete with flanged inlet and outlet connections. Due to restrictions in certain geographic areas, the air header and valve assemblies may be shipped as a sub-assembly for field installations. The large-volume modules are shipped in three, pre-matched sections for easy job-site completion.

3 important ways better

While sizing, access and housing construction of a dust collector are important, the critical features are the internals. Inside, JET III shows its superiority in these exclusive areas:

1. Tube sheet and bag attachment
2. Venturi and cage
3. Pulse cleaning system

The following pages describe these exclusive features of JET III that yield real benefits in operation and economy for you.

JET III—3 important ways better

#1—Tube Sheet & Bag Attachment

- Die-formed cups for added strength
- Positive seal against dust leakage
- Fast bag attachment, without tools
- Simple, one-step bagging
- Improves clean-side work area

Tube Sheet:

JET III uses the Wheelabrator-Frye drawn-cup tube sheet, previously available only in higher-priced collectors. The bag cups are drawn, eliminating welds which could fail or leak. The tube sheet is seal-welded into the housing to effect a positive seal against dust penetration. Also, the tube sheet's flat, smooth upper surface simplifies maintenance and housekeeping.

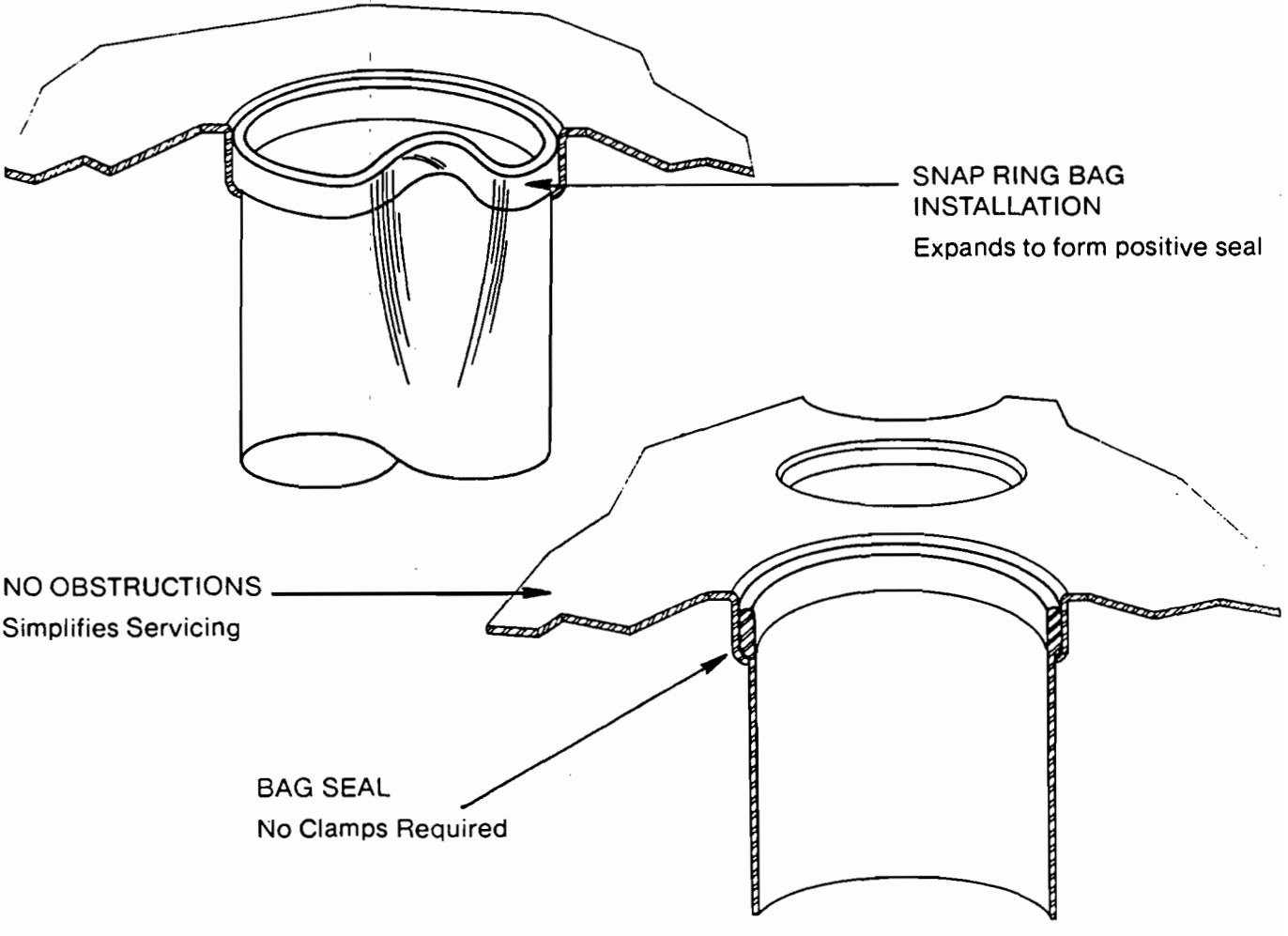
Bag Attachment:

JET III tube sheet features patented Wheelabrator-Frye "snap-ring" bag sealing.

Unlike other designs where bag installation often is a two-man, two-step operation external to the filter, JET III offers a fast, one-man, one-step process. Our tube sheet, acting as a natural bagging fixture, allows cage insertion directly into the tube sheet and bags.

This simple, one-step attachment creates the only seal necessary, eliminating the need for secondary seals such as "O" rings or gaskets. In fact, it would be difficult to install a bag which did not seal properly. On major change-outs, bags can be dropped to the dirty side hopper below, to maintain a true, clean-side work environment.

JET III filter bags are supplied by Wheelabrator-Frye's own W.W. Criswell Division. A complete range of high-quality bags is available in all popular synthetic fibers, including high-temperature fabrics.



JET III — 3 important ways better

#2 — Venturi and Cage

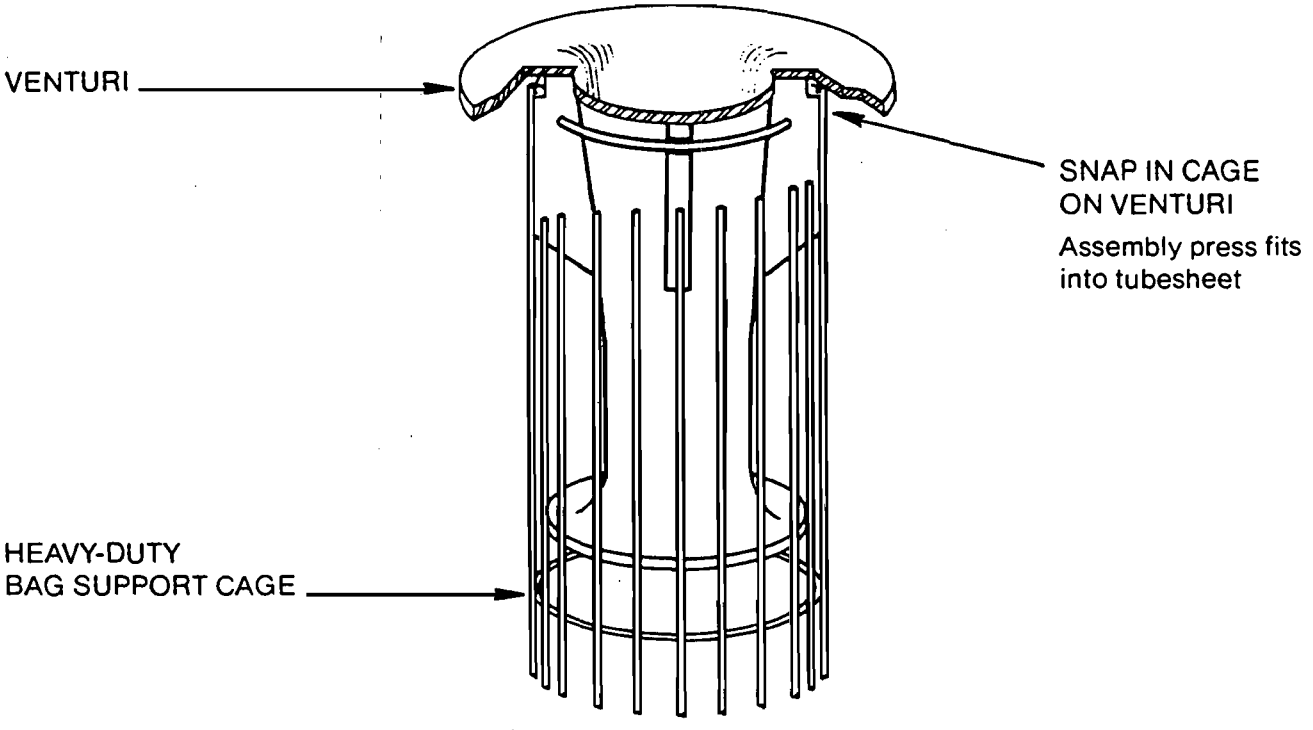
- Designed to save compressed air costs
- Venturi self-aligns for easy installation and efficient pulse cleaning
- Simple interlock for rapid assembly
- Quality bag support cages

The high-gain throat of JET III's newly-designed venturi is capable of cleaning more surface area of filter media with less compressed air. This provides effective cleaning of JET III's 6" diameter bags up to 14' long while the collector is on stream. JET III's venturi may be supplied in aluminum or cast iron. The venturi is self-aligning in the bag support cage and tube sheet for easy installation and maximum cleaning efficiency. No fittings, clamps, gaskets or attachments are required to secure the assembly.

JET III features the industry's simplest yet most effective venturi and cage assembly. Assembly requires only a single snap interlock of the venturi within the cage. The weight of the cage is then supported by the venturi flange.

The standard bag support cage is made of heavy-gauge wire to provide maximum support for long filter bag life. This rugged construction maintains alignment and critical dimensional relationship between bag and cage.

Cages are specifically designed to withstand rough handling during installation and subsequent bag change-outs. Carbon steel is standard. Stainless steel cages and corrosion-resistant coatings are available for special applications.



JET III—3 important ways better

#3—Pulse Cleaning System

- Simple design uses few parts
- Easy to maintain
- Saves energy costs

JET III features a uniquely designed pulse-jet cleaning system. Resulting from extensive research, JET III's pulse cleaning hardware is designed to clean with minimum air consumption and maximum energy savings. More filter cloth area is cleaned per horsepower than in previous designs. Field tested on critical industry applications, the JET III cleaning system can also contribute to prolonging filter bag life. JET III's header, air valves and manifold combine to offer a highly effective cleaning system.

1. JET III Header

The compressed air header is square in section for space saving, positive alignment and convenient bolt-on of air valves. This eliminates leakage common to other designs.

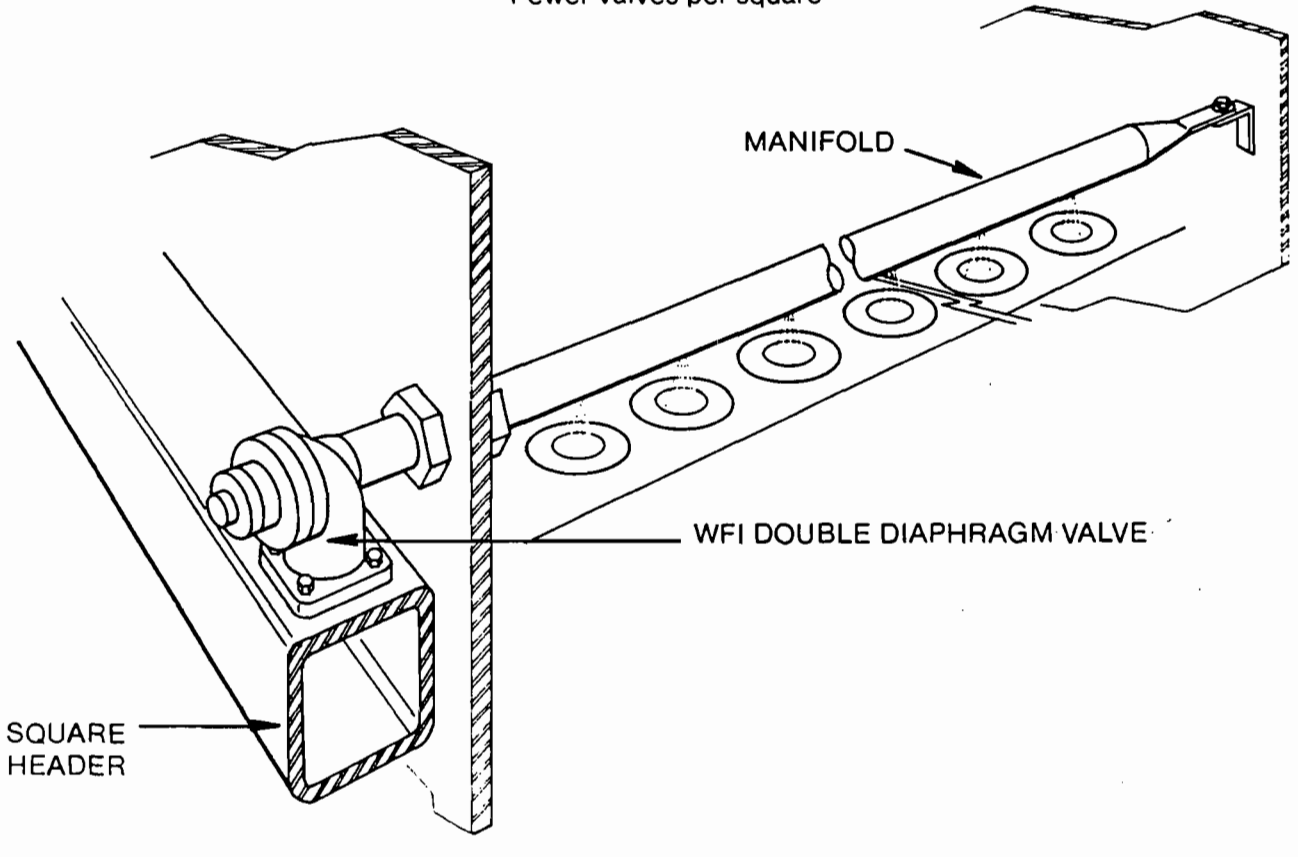
The header assemblies are sectioned to permit local isolation for maintenance without shutting down the total system. These sectioned headers provide rapid depletion of the header pressure. The system requires a maximum line pressure of 90 PSI for energy conservation.

2. JET III Double-Diaphragm Air Valve

Special Wheelabrator-Frye double-diaphragm valves are fitted to square headers. This air dump valve, matched to the new venturi, provides the air for cleaning up to 15 bags per row. Fewer valves per square foot of cloth mean less maintenance and fewer parts in inventory. The valve also allows the convenience of remote pilot control (for low-cost electrical installation) with no loss of efficiency across the air valve. The air valve is simple to replace should this ever become necessary.

3. JET III Manifold

The 1½"-diameter manifold pipe is jig-drilled for positive alignment of the blow holes with the venturi centers to assure maximum efficiency. Fit of the manifold within the plenum is positive to maintain this alignment. For bag inspection and/or removal, the manifold can be removed with a minimum of effort and no special tools.

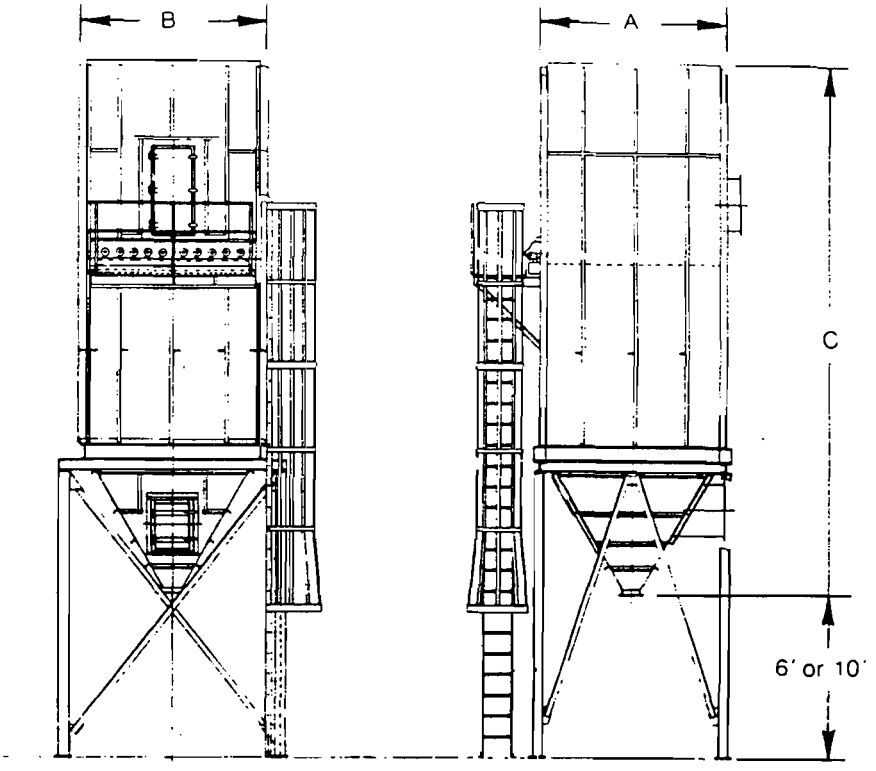


JET III

cloth areas ranging
from 1,140 to
5610 square feet.

Available with full height walk-in plenums (illustrated) type 'TA' or with multiple hinged roof doors. Type 'RA'.

NOTE:
'C' dimensions for all units with bag lengths up to and including 144" include walk-in plenums. 'C' dimensions for units with bag lengths of 156" or 168" include roof doors. Dimensions subject to change without notice.



Square Modules (TA & RA) Filter Areas Sq. Ft.

Model	No. of Bags	Filter Area/Module Bag Length In Inches					
		108"	120"	132"	144"	156"	168"
99	81	1140	1270	1390	1520	—	—
1111	121	1700	1900	2080	2270	—	—
1313	169	2380	2650	2910	3170	3450	3720
1515	225	3170	3530	3880	4230	4590	4950
1715	255	3590	4000	4380	4790	5200	5610

Square Modules 'TA' Overall Dimensions

Model	'A'	'B'	'C' — Dimension Based on Bag Length In Inches					
			108	120	132	144	156	168
99	6'-5"	6'-5"	24'-0"	26'-0"	28'-0"	30'-0"	—	—
1111	7'-9"	7'-9"	25'-2"	27'-2"	29'-2"	31'-2"	—	—
1313	9'-1"	9'-1"	26'-4"	28'-4"	30'-4"	32'-4"	27'-6"	28'-6"
1515	10'-5"	10'-5"	27'-5"	29'-5"	31'-5"	33'-5"	28'-7"	29'-9"
1715	11'-8"	10'-5"	28'-6"	30'-6"	32'-6"	34'-6"	29'-8"	30'-8"

Square Modules 'RA' Overall Dimensions

Model	'A'	'B'	'C' — Dimension Based on Bag Length In Inches					
			108	120	132	144	156	168
99	6'-5"	6'-5"	21'-2"	22'-2"	23'-2"	24'-2"	—	—
1111	7'-9"	7'-9"	22'-4"	23'-4"	24'-4"	25'-4"	—	—
1313	9'-1"	9'-1"	23'-6"	24'-6"	25'-6"	26'-6"	27'-6"	28'-6"
1515	10'-5"	10'-5"	24'-7"	25'-7"	26'-7"	27'-7"	28'-7"	29'-7"
1715	11'-8"	10'-5"	25'-8"	26'-8"	27'-8"	28'-8"	29'-8"	30'-8"

NOTE! Dimensions not to be used for construction purposes.

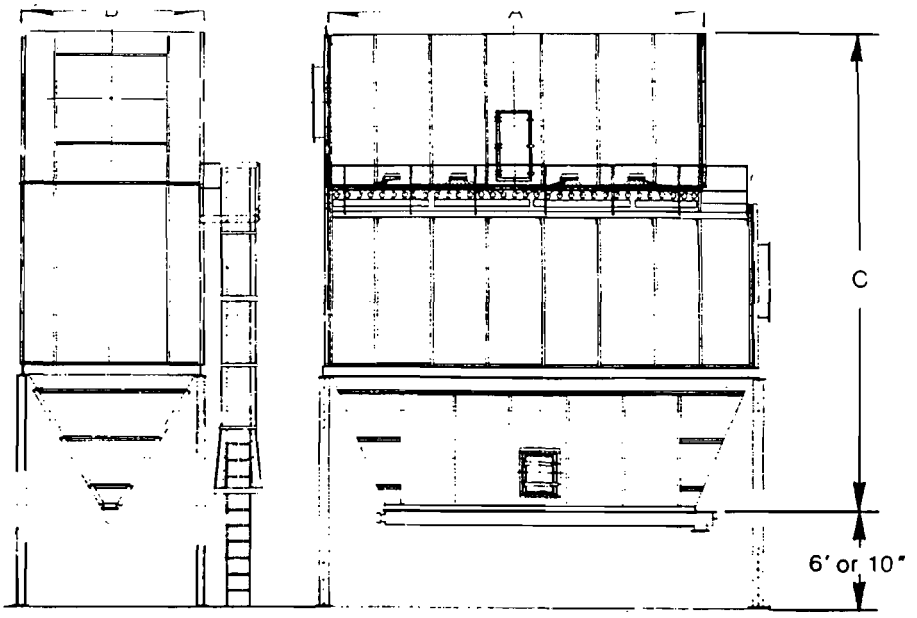
Large-Volume JET III

cloth areas ranging from 4940 to 12870 square feet.

Available with full height walk-in Plenums (illustrated Type "TA" or with multiple hinged roof doors type "RA"

Note:

"C" dimensions for all units with bag lengths up to and including 144" include walk-in plenums "C" dimensions for units with bag lengths of 156" or 168" include roof doors. Dimensions subject to change without notice.



Rectangular Modules — 'TA & RA' — Filter Areas in Sq. Ft.

Model	No. of Bags	Filter Area/Module Bag Lengths In Inches		
		120	144	168
2115	315	4940	5920	6930
2415	360	5650	6770	7920
2715	405	6360	7610	8910
3015	450	7060	8460	9900
3315	495	7770	9320	10890
3615	540	847	10150	11880
3915	585	9180	11000	12870

Rectangular Modules 'TA' Overall Dimensions

Module	'A'	'B'	'C' Dimension Based on Bag Length In Inches		
			120	144	168
2115	17'-4"	10'-5"	29'-1"	33'-1"	37'-1"
2415	19'-4"	10'-5"	29'-1"	33'-1"	37'-1"
2715	22'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3015	24'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3315	27'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3615	29'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3915	32'-4"	10'-5"	29'-1"	33'-1"	37'-1"

Rectangular Modules 'RA' Overall Dimensions

Model	A	B	'C' Dimension Based on Bag Length In Inches		
			120	144	168
2115	17'-4"	10'-5"	25'-5"	27'-5"	29'-5"
2415	19'-4"	10'-5"	25'-5"	27'-5"	29'-5"
2715	22'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3015	24'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3315	27'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3615	29'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3915	32'-4"	10'-5"	25'-5"	27'-5"	29'-5"

NOTE! Dimensions not to be used for construction purposes.

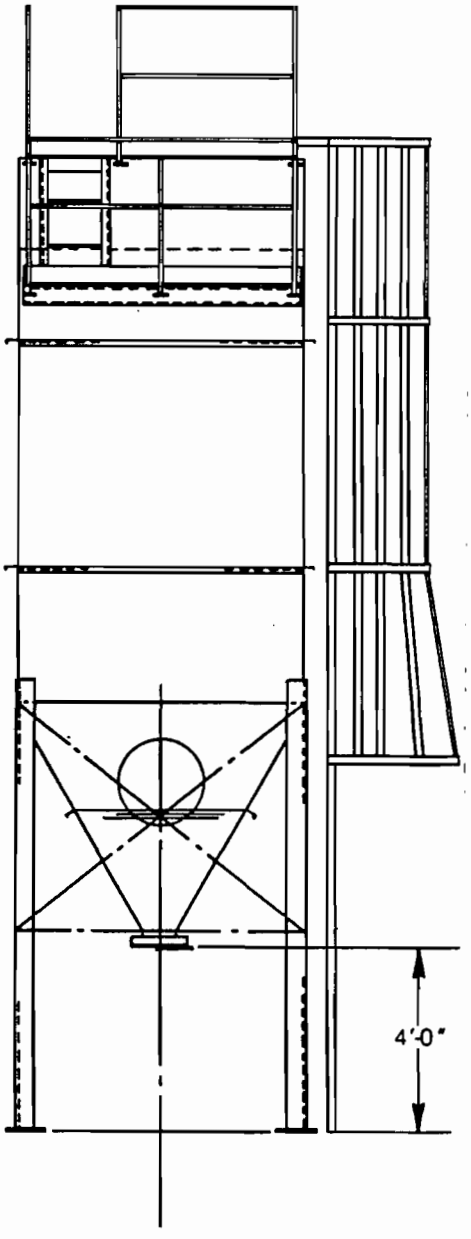
Type 1000RA (Roof Access)

The Type 1000 JET III Pulse-Jet Fabric Filter by Wheelabrator-Frye is available in six different sizes with filter areas between 226 and 1142 square feet. Type 1000 modules are sized for the smaller system volumes.

JET III is a wholly new design in fabric filters, offering high collection efficiency with true economy in terms of initial cost, operation, and maintenance.

Type 1000 collectors are square for convenience in connecting to the system ductwork. All JET III Pulse-Jet Fabric Filters provide clean side access to the filter section via hinged roof doors.

The JET III design employs a unique tubesheet, filter bag, and support cage assembly which combine to save time when servicing the filter section and to ensure a positive seal against dust penetration in operation. Rebagging is a simple, one-man operation performed outside the dust environment and without the use of special tools.



Front elevation.

Equipment Sizes

Model	No. Bags	Filter Area (sq. ft.)	Sq. Housing Size	Hopper Clearance	Overall Height* incl. Handrailing
1016/108	16	226	36"	4'-0"	21'-0"
1025/108	25	353	44"	4'-0"	21'-6"
1036/108	36	507	52"	4'-0"	22'-2"
1049/108	49	691	60"	4'-0"	22'-10"
1064/108	64	902	68"	4'-0"	23'-5"
1081/108	81	1142	76"	4'-0"	24'-2"

*Includes support legs.

Features

Tubesheet—Wheelabrator-Frye's own integrally drawn bag colors for positive bag sealing.

Snap Ring Bag—With tubesheet, provides simple, one-step bagging operation. No additional sealing required. No tools necessary.

Venturi and Bag Support Cage—High gain throat design venturi improves cleaning efficiency and saves energy. Venturi and cage interlock for single piece assembly into the filter bag, no prior assembly of these components outside the filter housing is necessary. Venturi and cage are self-aligning within the tubesheet and bag. No clamps or hold down devices are required.

JET III Pulse Cleaning System—The square, space-saving compressed air header employs Wheelabrator-Frye's special bolt on air valves for leakproof alignment with the air distribution manifolds. JET III utilizes remote pilot valves for low-cost field wiring.

JET III Timer—The Type 1000 employs a solid state electronic timer in Nema IV enclosure with 110 volt AC solenoids.

Auxiliaries—All modules are supplied with standard access ladders, walkways, and handrail to meet OSHA requirements. A complete range of hopper valves and material handling systems are available.

Standard Construction—JET III Type 1000 modules are all welded and fabricated of 12 gauge carbon steel stiffened for 15" w.g.

Shipment—JET III Type 1000 modules are shipped as one-piece units, including support legs, for simple, low-cost installation.

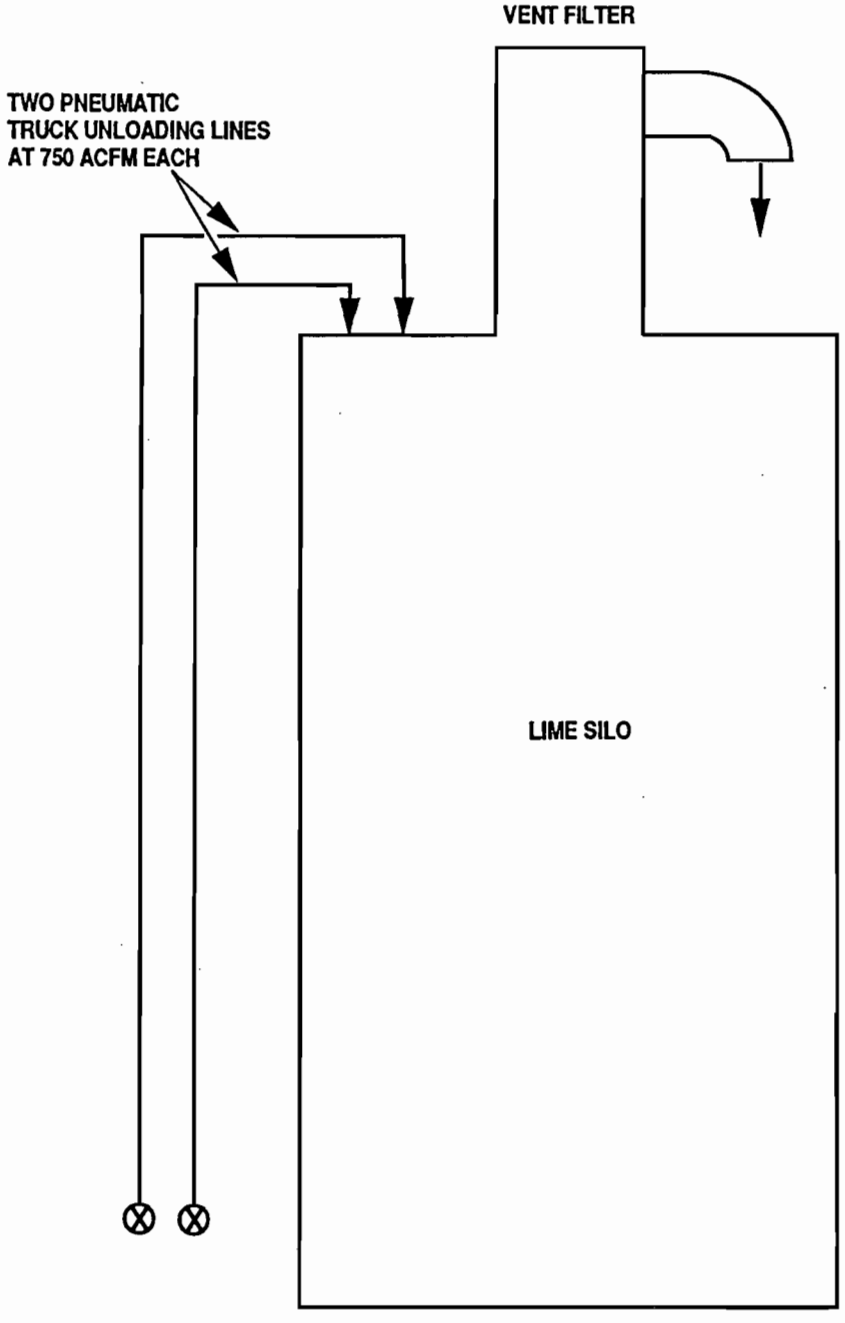
Air Pollution Control Division
Wheelabrator-Frye Inc.

600 Grant Street
Pittsburgh, PA 15219
(412) 288-7300

MEMBER
IGCI

ATTACHMENT C

KBN.12/WHEEL.1
6/90C



TO ATMOSPHERE
1,500 ACFM MAX
0.13 LB/HR PARTICULATE

NOTE: LIME DUST COLLECTED
WILL BE DISCHARGED
INTO LIME SILO.

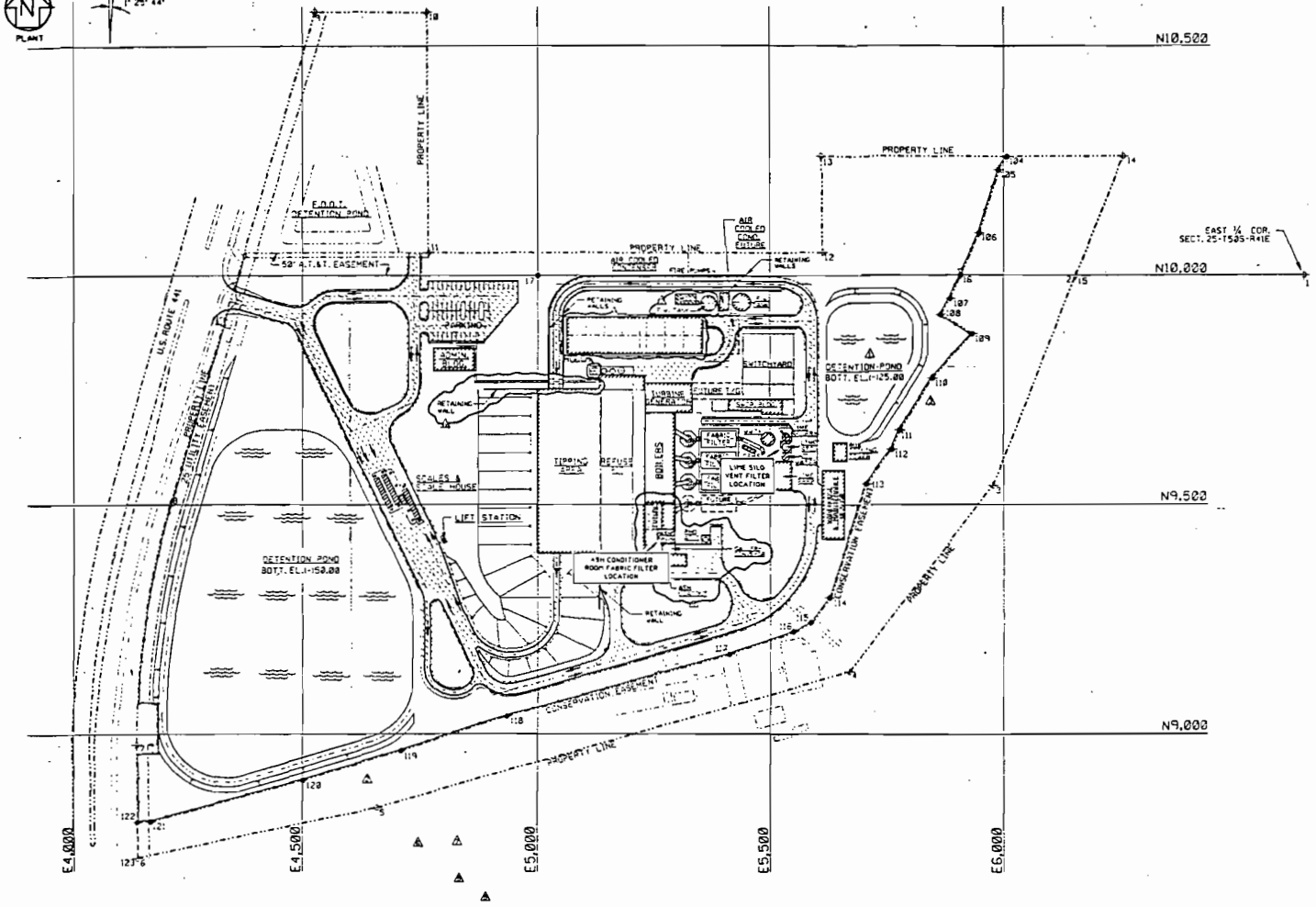
PROCESS RATE WILL BE
20,000 LB/HR PER FILL LINE
WHEN TRUCKS ARE UNLOADING.

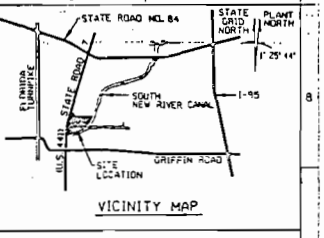
ATTACHMENT C LIME SILO DUST CONTROL FLOW DIAGRAM

KBN

ATTACHMENT D

BEST AVAILABLE COPY





VICINITY MAP

LEGEND

- PROPOSED FACILITIES
- EXISTING FACILITIES
- BITUMINOUS PAVEMENT
- NEW SECURITY FENCE
- EXISTING FENCE
- PROPERTY CORNER
- EASEMENT CORNER
- GUARD RAIL

NOTES

1. PLANT NORTH FOR THIS PROJECT IS ORIENTED 1° 25' 44" CLOCKWISE FROM STATE OF FLORIDA GRID NORTH. THE PROPERTY CORNER IDENTIFIED ON THIS DRAWING AS #11 HAS BEEN ESTABLISHED AS PLANT COORDINATE NORTH 12250.28 AND EAST 4769.98 WHICH IS EQUIVALENT TO FLORIDA STATE GRID COORDINATE NORTH 831,874.998 AND EAST 768,635.714. ALL BEARINGS SHOWN ARE IN RELATION TO PLANT NORTH UNLESS NOTED OTHERWISE.
2. SEE DRAWING 01-32-205 FOR PROPERTY DATA. PROPERTY DATA IS BASED ON THE PLAT TITLED "ROUTE 441 RESOLVE RECOVERY SITE" PREPARED BY KEITH AND SCHNARS, P.A., SURVEYORS CERTIFICATE DATED APRIL 2, 1987.
3. ALL ELEVATIONS ARE REFERENCED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.

REV. 7 W.A. RUTHERFORD 7-20-89

RELEASED FOR CONSTRUCTION
12-22-87 DATE C.M.PYRON BY

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Clifton, Massachusetts

REV.	REVISIONS	MADE	CHK.	DATE
3	GENERAL REVISION	CPJ	JDH	4-14-89
4	GENERAL REVISION	CPJ	JDH	7-31-89
3	GEN.REV.;REISSUED FOR APPROV.TO CONSTRUCT	PSB	JDH	11-16-89
	SUPERSEDE ALL PREVIOUS ISSUES	PSB	JDH	11-16-89
2	RELOCATED ENTRANCE ROAD & FENCE	TN	JDH	8-3-88
1	REVISED POND ELEV. & REVISED CONTOURS, BUILDING & DETENTION POND	PSB	JDH	6-17-88

HOLD ON ACC. ADD F.W. TANK & REV. ACC.
RETAIN. WALL, TUNNEL & SIDEWALK AT DROP
REV. ASH LOADOUT & PHOS. ACID ADD
GENERAL REVISION CPJ KFJ 7-19-89
GENERAL REVISION CPJ KFJ 5-3-89

01-32-205 PROPERTY DATA

REFERENCES

SCALE: 1" = 100'	DATE
DRAWN BY	
CHECKED BY	
APPD. BY	
APPD. BY	
APPD. BY	

PLOT PLAN

SOUTH BROWARD RESOURCE RECOVERY FACILITY

Ebasco International Corporation Birmingham, Alabama
Contract 21-29398

DRAWING NUMBER 01-32-001 REV. NO. 8

WHEELABRATOR NORTH BROWARD INC.

2600 N.W. 48th Street
Pompano Bch., FL 33073
305-971-8701 - Tel.
305-971-8703 - Fax

NORTH BROWARD RESOURCE RECOVERY FACILITY

PA 86-22

PSD-FL-112

MINOR SOURCE PERMITS

LIME SILO VENT FABRIC FILTER

ASH CONDITIONER ROOM VENT FABRIC FILTER

WHEELABRATOR NORTH BROWARD INC.

2600 N.W. 48th Street
Pompano Bch., FL 33073
305-971-8701 - Tel.
305-971-8703 - Fax

September 25, 1990

Mr. Scott Benyon, Deputy Assistant Secretary
Southeast District
Florida Department of Environmental Regulation
1900 South Congress Avenue, Suite A
West Palm Beach, FL 33406

Attn: Ms. Stephanie Brooks, Air Permitting Engineer
Subject: North Broward Resource Recovery Facility:
PA 86-22; PSD-FL-112
Minor Source Permits for:
Lime Silo Vent Fabric Filter
Ash Conditioner Room Vent Fabric Filter

Dear Ms. Brooks:

Please find attached four copies of permit applications for the above referenced minor sources. These sources are part of the North Broward County Resource Recovery Projects and will control dust emissions of auxiliary ash handling equipment and equipment associated with the acid-gas scrubber required by the EPA Prevention of Significant Deterioration (PSD) permit. Although the facility has been permitted under the Power Plant Site Certification Act, discussions with Buck Oven indicate that these can be submitted as minor source permits rather than amend the certification. The combined total emissions from both sources will be less than 4 tons per year.

Also enclosed is a check payable to the Florida Department of Environmental Regulation for $400.00, in accordance with the construction permit fee for the two sources, each having potential emissions [as defined in 17-2.100 (150)] of less than 25 tons per year. Please note that the potential emissions listed in the application are uncontrolled emissions which were included to provide information on control efficiency.

By copy of this letter, we are advising the EPA of the addition of these sources at the North Broward County Resource Recovery Project site. As noted above, the facility has previously received a PSD permit from the EPA.

Please call me or Kennard F. Kosky of KBN Engineering and Applied Sciences, Inc. if you have any questions regarding these permits.

Sincerely,

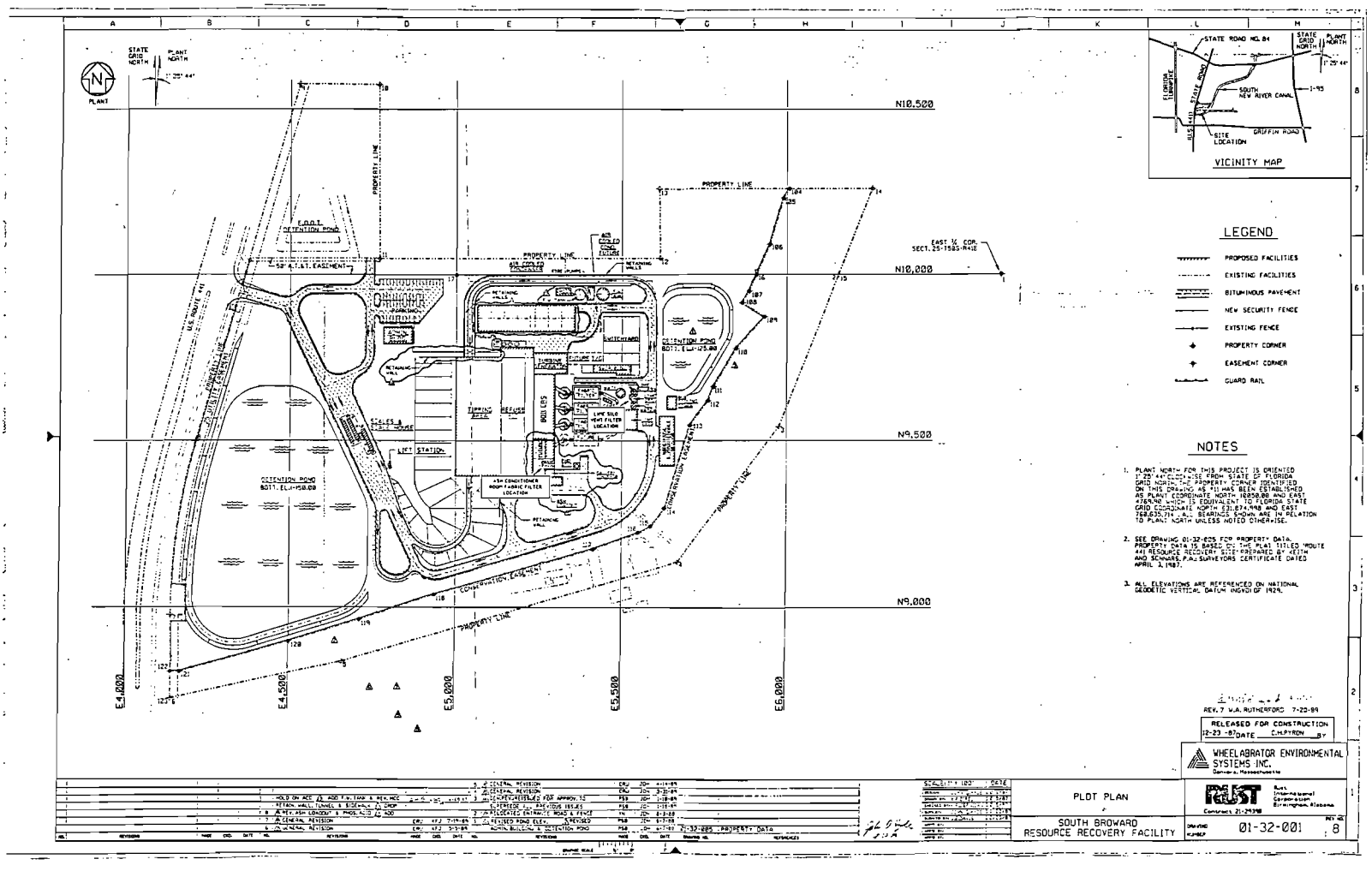
ORIGINAL SIGNED

James R. Wiegner
Project Manager

212.GRM/th
encl. (4)
cc: Jewell A. Harper, EPA Region IV w/enclosures
H.S. Oven, P.E., FDER Tallahassee w/enclosures
Dr. Alex Padva, FDER SEDO w/o enclosures
Joseph Lurix, FDER SEDO w/o enclosures

Mark Meech, RUST w/enclosures
Mark Kirchman, WTI-North w/enclosures
Rick Mulhorn, WTI-South w/enclosures
Thomas Henderson, Broward County w/enclosures
Dave Cerrato, Malcolm Pirnie, Inc. w/enclosures
Frank Ferraro, WTI-Hampton w/o enclosures
Tim Porter, WTI-Hampton w/enclosures

BEST AVAILABLE COPY



NOTES

1. PLANT NORTH FOR THIS PROJECT IS ORIENTED 1° 25' 44" CLOCKWISE FROM STATE OF FLORIDA GRID NORTH. THE PROPERTY CORNER IDENTIFIED ON THIS DRAWING AS #11 HAS BEEN ESTABLISHED AS PLANT COORDINATE NORTH 10350.00 AND EAST 4769.98 WHICH IS EQUIVALENT TO FLORIDA STATE GRID COORDINATE NORTH 651,874.998 AND EAST 768,635.714. ALL BEARINGS SHOWN ARE IN RELATION TO PLANT NORTH UNLESS NOTED OTHERWISE.
2. SEE DRAWING 01-32-005 FOR PROPERTY DATA. PROPERTY DATA IS BASED ON THE PLAT TITLED "ROUTE 441 RESOURCE RECOVERY SITE" PREPARED BY KEITH AND SCHNARS, P.A. SURVEYORS CERTIFICATE DATED APRIL 3, 1987.
3. ALL ELEVATIONS ARE REFERENCED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.

REV. 7 W.A. RUTHERFORD 7-20-89

RELEASED FOR CONSTRUCTION
12-23-87 DATE C.H.PYRON BY

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Somerville, Massachusetts

NO.	REVISIONS	MADE	CHKD.	DATE
1	HOLD ON ACC ⚠ ADD F.W. TANK & REV. HCC			
1	RETAIN WALL TUNNEL & SIDEWALK TO CROP			
1 B	⚠ REV. ASH LOADOUT & PHOS. ACID ⚠ ADD			
1 7	⚠ GENERAL REVISION	ERJ	KFJ	7-19-88
6	⚠ GENERAL REVISION	ERJ	KFJ	5-5-89
8	⚠ GENERAL REVISION	ERJ	JDH	4-11-89
9	⚠ GENERAL REVISION	ERJ	JDH	5-31-89
10	⚠ MISCELLANEOUS REVISED FOR APPROV. 72	PSB	JDH	7-18-89
11	⚠ REVISE ALL PREVIOUS ISSUES	PSB	JDH	7-19-89
12	⚠ RELOCATE ENTRANCE ROAD & FENCE	PSB	JDH	8-3-89
13	⚠ REVISED ROAD ELEV. ⚠ REVISED	PSB	JDH	9-7-89
14	ADMIN BUILDING & DETENTION POND	PSB	JDH	11-7-89

21-32-005 : PROPERTY DATA

SCALE: 1" = 100' DATE

PLOT PLAN

SOUTH BROWARD RESOURCE RECOVERY FACILITY

Fluor International Corporation Birmingham, Alabama
Contract 21-24398

DRAWING NUMBER 01-32-001 : 8

REV. NO. 1

Permit Data Form

Project Source Name: North Broward Resource Recovery Facility

Type Code: AC Subcode: 1E Check if: ☐ GP ☐ Exempt

Correct Fee: $400.00

Amount Received: $400.00

Permit Processor's Initial: MS Data Entry Operator's Initial: [signature]

Amount Returned: ———

Comments:

AC 06-186997 /Lime
AC 06-186998 /Ash

SES BROWARD CO. L.P.
4400 SOUTH STATE HIGHWAY 7
FORT LAUDERDALE, FLORIDA 33314

NCNB National Bank of Florida
Tampa, Florida

1101

63-27/631 309

September 26, 1990

PAY Four hundred and 00/100 DOLLARS $ 400.00

TO THE ORDER OF Florida Department of Environmental Regulation

[signature]

[redacted]

SES BROWARD CO. L.P.

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED BELOW.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

DELUXE - FORM WVCP-3 V-4

INVOICE DATE	INVOICE NO.	DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS DISCOUNT	DEDUCTIONS FREIGHT	NET AMOUNT
9/26/90		General Ledger Acct. # 1510 North Broward Resource Recovery Facility: PA 86-22; PSD-FL-112	$400.00			
		Minor Source Permits for: Lime Silo Vent Fabric Filter — Ash Conditioner Room Vent Fabric — Filter				

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

Reply Optional [ ] Reply Required [ ] Info. Only [ ]
Date Due: _____ Date Due: _____

TO: Broward County Environmental Quality Control Board
Broward County Health Department
Dade County Public Health Unit
Metropolitan Dade County Environmental Resources Management
Palm Beach County Public Health Unit

FROM: I. Goldman P.E., West Palm Beach

DATE: September 27, 1990

SUBJECT: Application

Application File No. AC 06-186997 + AC 06-186998
Application Name North Broward Resource Recovery FAC.

This office has received the following application for:

- [X] Air Pollution Source
- [ ] Domestic Wastewater
- [ ] Drainage Well
- [ ] Hazardous Waste Facility
- [ ] Industrial Wastewater
- [ ] Injection Well
- [ ] Public Water Well/Plant
- [ ] Solid Waste Facility

for

- [X] Construction Permit
- [ ] Operating Permit
- [ ] Temporary Operating Permit

Your comments regarding completeness of the application are requested by 10/11/90.

A copy of the application has been provided to you by:

- [X] The applicant or his engineer; or
- [ ] Is attached

If you have any questions please call 407/ 964-9668

DBW:bj

WPB 116P (Rev. 5/82)

APPLICATION TRACKING SYSTEM 09/27/90

APPL NO:186997
APPL RECVD:09/27/90 TYPE CODE:AC SUBCODE:1E LAST UPDATE:09/27/90
DER OFFICE RECVD:WPB DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:SITTIG, MARK
APPL STATUS:AC DATE:09/27/90 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:50 COUNTY:06
(Y/N) N OGC HEARING REQUESTED LAT/LONG:26.17.14/80.09.35
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEGMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? CDE #:__________
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-__________

PROJECT SOURCE NAME:NORTH BROWARD RESOURCE RECOVERY FAC
STREET:2700 HILTON ROAD (NW 48TH STR) CITY:POMPANO BEACH
STATE:FL ZIP:33314 PHONE:___-___-____
APPLICATION NAME:JAMES R. WIEGNER, PROJECT MANAGER
STREET:4400 S. STATE ROAD 7 CITY:FT.LAUDERDALE
STATE:FL ZIP:33314 PHONE:305-581-6606
AGENT NAME:KENNARD F. KOSKY
STREET:1034 NW 57 STR. CITY:GAINESVILLE
STATE:FL ZIP:32605 PHONE:904-331-9000
FEE #1 DATE PAID:09/27/90 AMOUNT PAID:00200 RECEIPT NUMBER:00159885

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 LAST 45 DAY LETTER WAS SENT - - - - - - - - - - - __/__/__
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:(LIME SILO VENT FABRIC FILTER)

Attachment I

PERMIT #: PC06-186997 APPLICANT NAME: North Broward Resource Recovery Fac.

TYPE OF PERMIT: AC SUBTYPE: 1E

STATUS: ___ (IS, DE, GP, EX, WI) PERMIT PROCESSING [FORM #: DER-CA 01]

OFFICE: Southeast District

DATE	TIME BEGIN	TIME END	TOTAL TIME (15 MIN)	TASK	POSITION TITLE
9/27/90	12:30	1:00	30 mins		Sr Clerk

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT North Broward Resource Recovery Fac. (Lime Silo Vent)

PROJECT LOG NO. AC 06-186997 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec # 15985

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS__; LOCAL PROGRAM ✓; TALLAHASSEE__; DNR__; OTHER__

9/27/90 (cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sitig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes__ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

APPLICATION TRACKING SYSTEM 09/27/90

APPL NO:186998
APPL RECVD:09/27/90 TYPE CODE:AC SUBCODE:1E LAST UPDATE:09/27/90
DER OFFICE RECVD:WPB DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:SITTIG, MARK
APPL STATUS:AC DATE:09/27/90 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:SO COUNTY:06
(Y/N) N OGC HEARING REQUESTED LAT/LONG:26.17.14/80.09.35
(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:NORTH BROWARD RESOURCE RECOVERY FAC
STREET:2700 HILTON ROAD (NW 48TH STR) CITY:POMPANO BEACH
STATE:FL ZIP:33314 PHONE:___-___-____
APPLICATION NAME:JAMES R. WIEGNER, PROJECT MANAGER
STREET:4400 S. STATE ROAD 7 CITY:FT.LAUDERDALE
STATE:FL ZIP:33314 PHONE:305-581-6606
AGENT NAME:KENNARD F. KOSKY
STREET:1034 NW 57 STR. CITY:GAINESVILLE
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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 LAST 45 DAY LETTER WAS SENT - - - - - - - - - - - __/__/__
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:(ASH CONDITIONER ROOM VENT FABRIC FILTER)

Attachment I

PERMIT #: AC 06-186998 APPLICANT NAME: North Broward Resource Recovery (Ash Conditioning) Fac.

TYPE OF PERMIT: AC SUBTYPE: IE

STATUS: ____ (IS, DE, GP, EX, WI) PERMIT PROCESSING [FORM #: DER-CA 01]

OFFICE: Southeast District

DATE	TIME BEGIN	TIME END	TOTAL TIME (15 MIN)	TASK	POSITION TITLE
9/27/90	1:00	1:30	30 mins		Sr Clerk

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT North Broward Resource Recovery Inc. (Ash Conditioner)

PROJECT LOG NO. AC 06-186998 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 (Rec't 15985) 30-DAY (HW 60-DAY) DATE 10/26/90

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER _____ 9/27/90 (Cover Letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes__ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

November 25, 1992

Mr. Paul F. Claerbout
Plant Manager
Wheelabrator North Broward Inc.
2600 N.W. 48th Street
Pompano Beach, Florida 33703

RE: North Broward Resource Recovery Facility,
PA 86-22

Dear Mr. Claerbout:

On November 4, 1992, you requested that the emergency modification granted on September 1, 1992, for the North Broward Facility be extended for 90 days. In order to provide an environmentally acceptable alternative to the disposal of Hurricane Andrew damage refuse, the Department proposes to extend the emergency modification until January 14, 1993.

If you should desire an additional extension, or if you should desire to make the increase in capacity permanent, you should file for a modification of the conditions pursuant to Section 403.516, F.S., and Section 17-17.211, F.A.C.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office

cc: Greg Worley, EPA
Clair Fancy, DER
Mary Williams, DER
Vic Kamath, DER
Izzy Goldman, DER
Tom Henderson, Broward County

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. ~~CLAIR FANCY 3RD FLOOR~~
2. John ~~[illegible]~~ ~~Preston~~ [illegible]
3. Ed [illegible] [illegible]
4. Patty – File

Remarks:

RECEIVED

NOV 30 1992

Division of Air Resources Management

From:	Date
BUCK OVEN	11/25
	Phone 7-0472

Patty for F. Ic

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In Re:)
)
North Broward Resource Recovery Facility)
Power Plant Certification)
Emergency Modification)
No. PA 86-22)
Broward County, Florida)
)
_____)

EMERGENCY ORDER MODIFYING CONDITIONS
OF CERTIFICATION

Under section 120.59(3) of the Florida Statutes, the State of Florida Department of Environmental Regulation (the Department) enters the following Emergency Final Order, including findings of fact and conclusions of law, in response to the devastation wrought by Hurricane Andrew in South Florida:

FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. Based upon the Findings of Fact and Conclusions of Law set forth in DER Emergency Final Order Number 92-1476, which is incorporated herein by reference, the Department concludes that the emergency situation will be alleviated if the North Broward Resource Recovery Facility receives temporary authorization to expand the loading rate of their boilers to burn debris from the hurricane.

2. Pursuant to Section 403.516(1), F.S., the Secretary of the Department is authorized to modify Conditions of Certification.

THEREFORE, IT IS ORDERED:

The Department hereby modifies the Condition of Certification XIV.A.1.c. for the North Broward Resource Recovery Facility as follows:

Condition XIV.A.1.c.

During hurricane emergency operating conditions from September 1, 1992, to November 30, 1992, the incinerator boilers shall not be loaded in excess of 71,917 ~~their-rated nameplate-capacity-of-67,200~~ pounds of MSW per hour or 323.73 ~~302.5~~ x 10^6 Btu per hour each. The temperature of the flue gas exiting the combustion chamber of the incinerator shall be equal to or greater than 1800 degrees F.

This modification shall take effect on the date this Order is rendered, and shall remain in effect until November 30, 1992, unless otherwise ordered by the Department.

NOTICE OF RIGHTS

Any party to this Order has the right to seek judicial review of this Order pursuant to Section 120.68, Florida Statutes by filing a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of the General Counsel, 2600 Blair Stone Road, Tallahassee, Florida, 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the appropriate filing fees with the appropriate district court of appeal. The Notice of Appeal must be filed within 30 days from the date of the Final Order is filed with the clerk of the Department.

DONE AND ORDERED this 1 day of September 1992, in Tallahassee, Florida

STATE OF FLORIDA DEPARTMENT OF ~~ENVIRONMENTAL~~ REGULATION

DANA D. MINERVA
~~ASSISTANT~~ SECRETARY

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Mary L. Wilson 9-1-92
Clerk Date

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT North Broward Resource Recovery Inc. (Lime Silo Vent)

PROJECT LOG NO. AC 06-186997 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec # 15785

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/27/90 (cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO S. Hig, M. AMOUNT OF FEE REQ'D $ _____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC 06-186997

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Refuse-to-Energy Facility [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Wheelabrator North Broward Inc. COUNTY: Broward

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) Ash Conditioner Room Fabric Filter

SOURCE LOCATION: Street 2700 Hilton Road (NW 48th Street) City Pompano Beach

UTM: East 583.900 meters North 2,907.600 meters

Latitude 26 ° 17 ' 14 "N Longitude 80 ° 9 ' 35 "W

APPLICANT NAME AND TITLE: Wheelabrator North Broward Inc.

APPLICANT ADDRESS: 4400 S. State Road 7, Fort Lauderdale, FL 33314

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Wheelabrator North Broward Inc.

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: J R Wiegner

James R. Wiegner, Project Manager
Name and Title (Please Type)

Date: 9/26/90 Telephone No. (305) 581-6606

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 judgement, that

[1]See Florida Administration 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 Kennard F. Kosky

Kennard F. Kosky
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 14996 Date: June 5, 1990 Telephone No. (904) 331-9000

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.

A fabric filter dust collector (baghouse) will be installed on the vent from the ash conditioner room to control dust.

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

Start of Construction August 1, 1990 Completion of Construction August 1, 1991

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

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

Power Plant Site Certification PA 86-22; PSD-FL-112

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? NA[1]
   a. If yes, has "offset" been applied? _____
   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
   c. If yes, list non-attainment pollutants. _____
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Yes[2]
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes[3]
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? No
   a. If yes, for what pollutants? _____
   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.

[1]Broward County is nonattainment for ozone; the applicable pollutant is volatile organic compounds (VOCs). This source will not emit VOCs.

[2]BACT for emission type is baghouse as identified by EPA's BACT/LAER clearinghouse documents.

[3]PSD applies since the total particulate matter/PM10 emissions from the resource recovery facility are greater than the significant emission amounts. PSD modeling and BACT analysis were performed for the municipal solid-waste-fired boilers. Because the emissions from this source are extremely low and well less than the significant emission levels, modeling of this source was considered unnecessary.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Flyash and			17,577	Attachment C
spray dryer				
reaction				
products				
Water			3,858	Attachment C

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

1. Total Process Input Rate (lbs/hr): 21,435

2. Product Weight (lbs/hr): 21,435

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 Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.69	3.0	17-2.610(1)(	b) 15.6	137.1	600.7	Att. C

[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.

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)
Bag Filter	Particulate	99%+	>0.3μm	Att. A
MAC Filter Model				
120 LST 100				

E. Fuels

Not Applicable

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, others--lbs/hr.

Fuel Analysis:

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 _____ Maximum _____

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

_____

_____

_____

_____

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
Horizontal Discharge
Stack Height: 60 ft. Stack Diameter: 28 in x 18 in

Gas Flow Rate: 8,000 ACFM _____ DSCFM Gas Exit Temperature: 40 to 100 °F.

Water Vapor Content: 60 to 95 % Velocity: 38.1 FPS
(relative humidity)

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (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 devices: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner
[ ] Other (specify)_____

Brief description of operating characteristics of control devices: _____

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

Flyash dust collected will be discharged via enclosed chute to the enclosed conveyor feeding the ash conditioners.

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)]
   See Attachment A
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.
   See Attachment A
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
   See Attachment A
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.)
   See Attachment B
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).
   See Attachment A
6. An 8 ½" 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.
   See Attachment C
7. An 8 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).
   See Attachment D
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
   See Attachment D

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

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

[ ] Yes [X] No

Contaminant	Rate or Concentration

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

[X] Yes [ ] No

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency down to 0.01 gr/scf (see EPA BACT/LAER Clearinghouse Documents, 1985, 1986, 1987, 1988, and 1989)

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

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency/0.01 gr/acf

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 Devices:

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 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:

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

Not Applicable

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

B. 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) _____

C. 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.

D. Applicants Maximum Allowable Emission Data

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

E. 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.

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

G. 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.

H. 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.

ATTACHMENT A

ASH CONDITIONER ROOM FABRIC FILTER
AIR PERMIT CALCULATIONS

A. Calculate lb/hr particulate emission using
0.01 grain/ACF (Vendor guarantee)

8000 ACF/min X 0.01 gr/acf / 7000 gr/lb X 60 min/hr =
0.69 lb/hr

B. Calculate tons/year(t/yr) particulate emissions

0.69 lb/hr X 8760 hr/yr / 2000 lb/ton =
3.00 t/yr

C. Calculate lb/hr potential (uncontrolled) emissions using
2.0 grain/ACF

8000 ACF/min X 2.0 gr/acf / 7000 gr/lb X 60 min/hr =
137.1 lb/hr

D. Calculate tons/year(t/yr) uncontrolled particulate emissions

137.1 lb/hr X 8760 hr/yr / 2000 lb/ton =
600.7 t/yr

E. Calculate exit velocity for 28" X 18" horizontal discharge

28" X 18" / 144sq in. per sq. ft= 3.5 ft2
8000 ft3/min / 3.5 ft2 / 60 sec/min = 38.1 ft/sec

By: _____
Checked: MLM

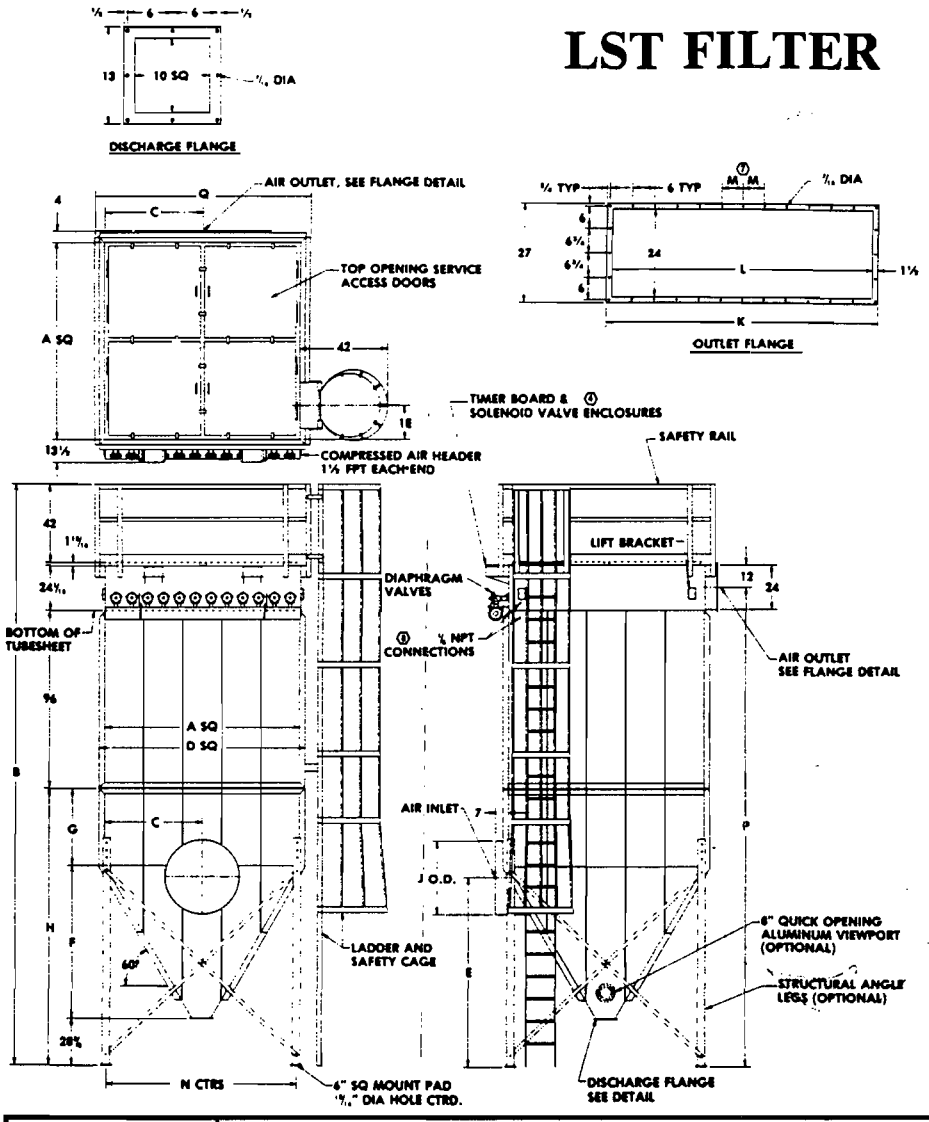
ATTACHMENT B

MAC
P.O. Box 205 • Sabetha, Kansas 66534 • Toll Free 1-800-223-2191
or in Kansas Call Collect 913-284-2191
FAX 913-284-3565

SECTION **2**

DATA SHEET
AIR VENT FILTERS
Effective Date 12-1-87
Supersedes 12-1-86

LST FILTER



STANDARD SPECS. FOR MAC MODEL LST FILTERS

Materials of Construction

12 ga. reinforced carbon steel for 17" W.C.
Full welded exterior except reinforcing, skip welded interior

Arrangement

Header at 6:00
Air outlet at 12:00
Ladder & Safety Cage at 3:00
Air inlet at 6:00
Housing and hopper are rotatable in 90° increments except that ladder and inlet cannot be on same side

Major Components

Clean air plenum with hinged top doors and welded - in tubesheet
One-Piece welded top plenum and baghouse assy.
Flanged air outlet
Removable internal air piping
6" compressed air header
Combination venturi and bag cage
Snap band 12 oz. singed polyester bags
1" diaphragm air valves for LST64 and LST81
1½" diaphragm air valves for LST100 and LST144
Timer board enclosure NEMA 12
Top guard rail
Ladder and safety cage
Pressure differential gauge kit
60° hopper flanged to housing
Round inlet stub

Painting

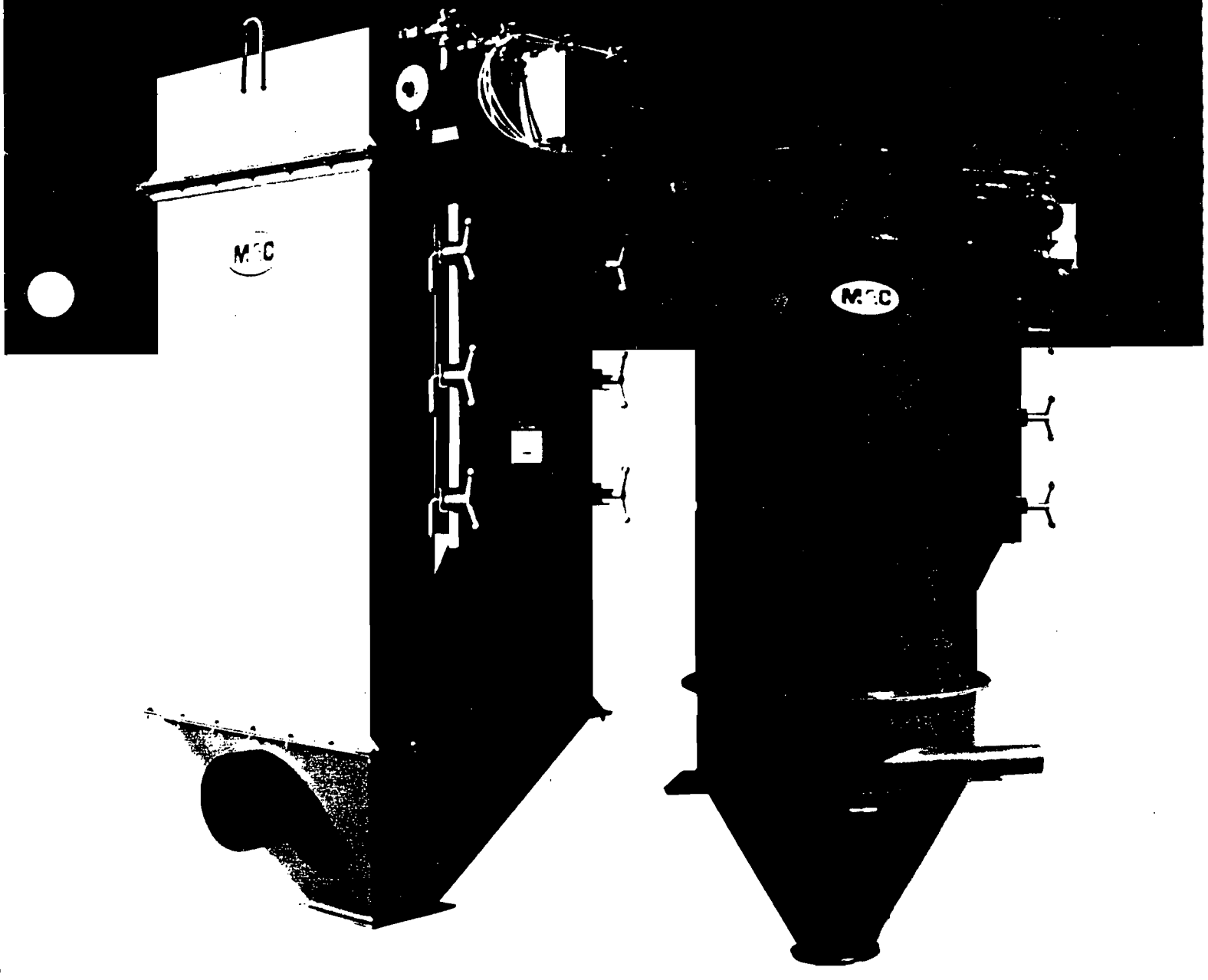
Standard cleaning and metal preparation
Exterior and clean air plenum interior primed with one coat 32x29 gray primer
Exterior to have 1 finish coat, color to be specified
Standard colors are MAC Green, Blue or White

NOTES:

1. All dimensions are in inches.
2. Const. is 12 ga. HRCS reinforced. Filters stressed for 17" W.G.
3. Filter cleaning mechanism requires clean, dry plant air at 90-100 PSIG. See schedule for SCFM cleaning air.
4. Timer board and solenoid valve enclosure requires 110 V. 60 HZ. power supply. Model LST144 has two enclosures, each of which requires a power supply. NEMA 12 enclosure standard. NEMA 4 and NEMA 9 enclosures optional.
5. Housing and hopper are installation rotatable in 90° increments.
6. Top opening service doors open from center.
7. XXXLST81 outlet flange does not have center hole.
8. ¾"NPT must have pipe plug if differential pres. ga. is not used.

DIMENSIONS AND SPECIFICATIONS	MODEL											
	96LST64	120LST64	144LST64	96LST81	120LST81	144LST81	96LST100	120LST100	144LST100	96LST144	120LST144	144LST144
CLOTH AREA	845	1062	1280	1069	1345	1620	1320	1660	2000	1901	2390	2880
NO. OF BAGS	64	64	64	81	81	81	100	100	100	144	144	144
SCFM CLEANING AIR	10	10	10	10	10	10	21	21	21	42	42	42
A	70½	70½	70½	79	79	79	87½	87½	87½	104½	104½	104½
B	262 1⅞₁₆	286 1⅞₁₆	310 1⅞₁₆	270 ⅞₁₆	294 ⅞₁₆	318 ⅞₁₆	277 1⅛₁₆	301 1⅛₁₆	325 1⅛₁₆	292⅜	316⅜	340⅜
C	35¼	35¼	35¼	39½	39½	39½	43¾	43¾	43¾	52¼	52¼	52¼
D	76½	76½	76½	85	85	85	93½	93½	93½	110½	110½	110½
E	82 1⅛₁₆	82 1⅛₁₆	82 1⅛₁₆	87 1⅛₁₆	87 1⅛₁₆	87 1⅛₁₆	92 1⅜₁₆	92 1⅜₁₆	92 1⅜₁₆	104½	104½	104½
F	52 1⅛₁₆	52 1⅛₁₆	52 1⅛₁₆	60 1⅛₁₆	60 1⅛₁₆	60 1⅛₁₆	67 1⅛₁₆	67 1⅛₁₆	67 1⅛₁₆	82⅛	82⅛	82⅛
G	18	42	66	18	42	66	18	42	66	18	42	66
H	99 1⅛₁₆	123 1⅛₁₆	147 1⅛₁₆	106 ⅞₁₆	130 ⅞₁₆	154 ⅞₁₆	113 1⅜₁₆	137 1⅜₁₆	161 1⅜₁₆	128½	152½	176½
J	26	26	26	30	30	30	34	34	34	40	40	40
K	35	35	35	43	43	43	51	51	51	73	73	73
L	32	32	32	40	40	40	48	48	48	70	70	70
M	4¾	4¾	4¾	2¾	2¾	2¾	6¾	6¾	6¾	5¾	5¾	5¾
N	68¾	68¾	68¾	77¼	77¼	77¼	85¾	85¾	85¾	102	102	102
P	207⅛	231⅛	255⅛	214½	238½	262½	221⅞	245⅞	269⅞	236 ⅛₁₆	260 ⅛₁₆	284 ⅛₁₆
Q	81¾	81¾	81¾	90¼	90¼	90¼	98¾	98¾	98¾	115¾	115¾	115¾
WEIGHT	4180	4460	4950	5030	5370	5980	5980	6370	7100	7450	7850	8750

PULSE JET FILTERS



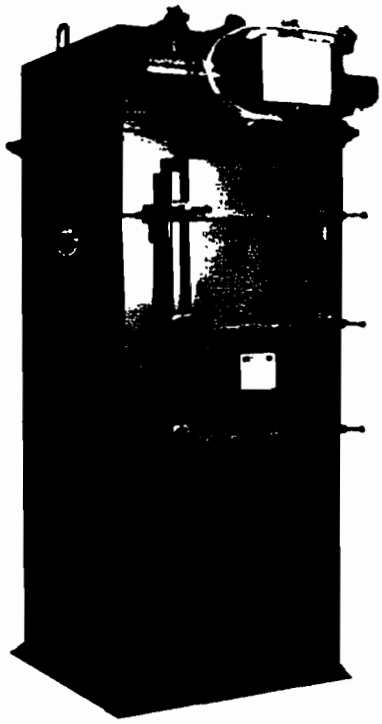
Introduction

Mac Offers 5 Models of Small, Modular Pulse Jet Filters.
Each MAC Pulse Jet Filter is designed for a variety of applications and the product line, as a whole, will meet almost any requirement for pulse jet filters in our size range. MAC has 5 models of small, modular Pulse Jet Filters. They are "AVS" (Air-Vent Square), "AVR" (Air Vent Round), "ST" (Square-Top Bag Removal), "LST" (Large Square-Top Bag Removal) and "RT" (Round-Top Bag Removal). Larger Pulse Jet Filters are available in the RPT line. The "AVR" and "RT" filters can be furnished with an optional tangential pneumatic receiver section when used in conjunction with pneumatic conveying systems.

Rely on Our Engineers to Help You Select a Filter to Meet Your Particular Application.
All MAC Pulse Jet Filters will effectively filter such materials as grain, metallurgical fume, feed, coal, flour, cement, limestone, fly ash, sugar and a variety of chemical solids. The engineers at MAC will select the proper model, size and fabric for your particular application. With our experience of over 18 years in the manufacturing business, chances are good that we have successfully handled the majority of applications in the past.

The Filter Bags in All MAC Pulse Jet Models are Cleaned by Compressed Air.
The filters operate as follows. Dust laden air enters the unit and passes from the outside to the inside of the cage-supported tubular filter bags. The dust is retained on the exterior of the filter bag while the cleaned air flows upward through the bag and exits via the venturi at the top of the bag into the clean air plenum.

Bag Cleaning is Controlled by an Electric Timer — Controlling the Cleaning of Each Row of Bags.
Upon actuation by the timer, a large capacity diaphragm valve opens the header pipe above a row of bags for a duration of 20 to 40 milliseconds. Compressed air nozzles located in the header pipe above each venturi direct the air into the individual filter bags. As the compressed air enters the venturi, filtration is momentarily stopped. As the compressed air bubble travels down the length of the bag, the fabric and the dust are accelerated away from the cage. The bag reaches its elastic limit and its movement is halted while inertia causes the dust to continue to move and thus separates it from the bag surface. The dust is discharged at the base of the filter. All models feature no-moving-parts construction and operate with minimal maintenance. The timer is completely adjustable with regard to cycle and pulse duration to minimize compressed air usage.

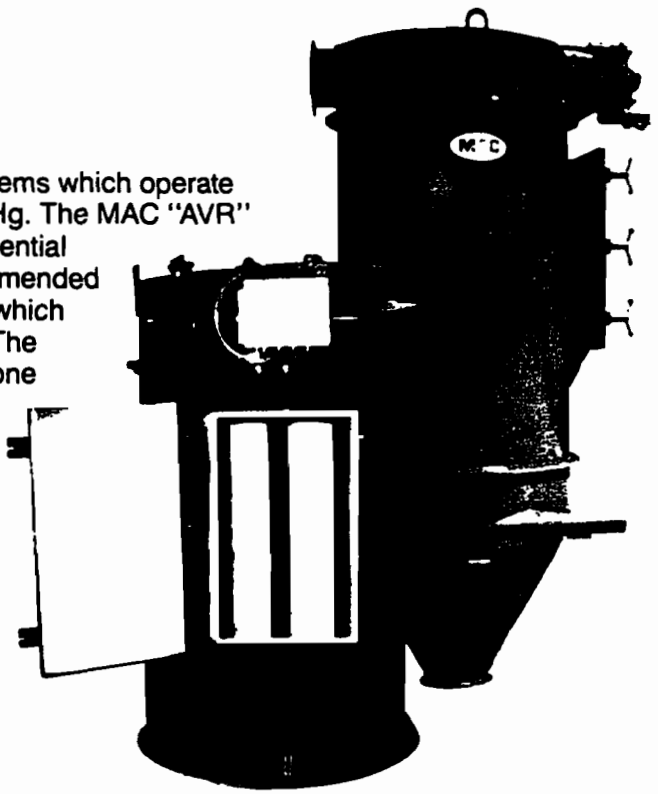


AVS

The "AVS" filter is suitable for systems where the operating static pressure ranges between -17" W.C. to +17" W.C. The "AVS" models contain up to 850 square feet of cloth and can handle up to 8500 CFM at a 10 to 1 air to cloth ratio.

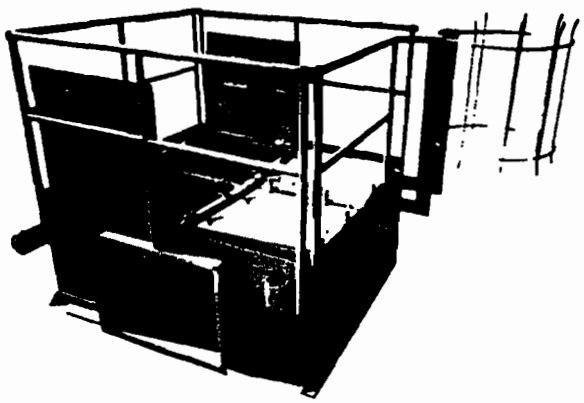
AVR

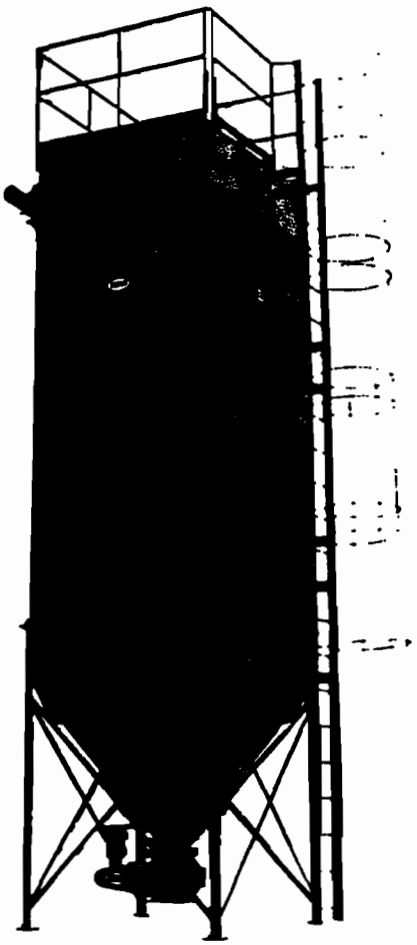
The "AVR" filter is designed for those systems which operate at higher static pressure levels, up to 17" Hg. The MAC "AVR" filter can be supplied with an optional tangential pneumatic receiver. This receiver is recommended for heavy dust loads or for applications in which the filter is used as a pneumatic receiver. The tangential inlet together with an inner cyclone ring, protects the bags from wear by abrasive and high velocity particles.



RT, ST, and LST

The "ST", "LST", and "RT" models are similar to the "AVS" and "AVR" models but are designed for top bag removal. All have clean air plenums with hinged top doors for easy bag removal. The larger "RPT" models (not illustrated) are available with walk-in plenums.



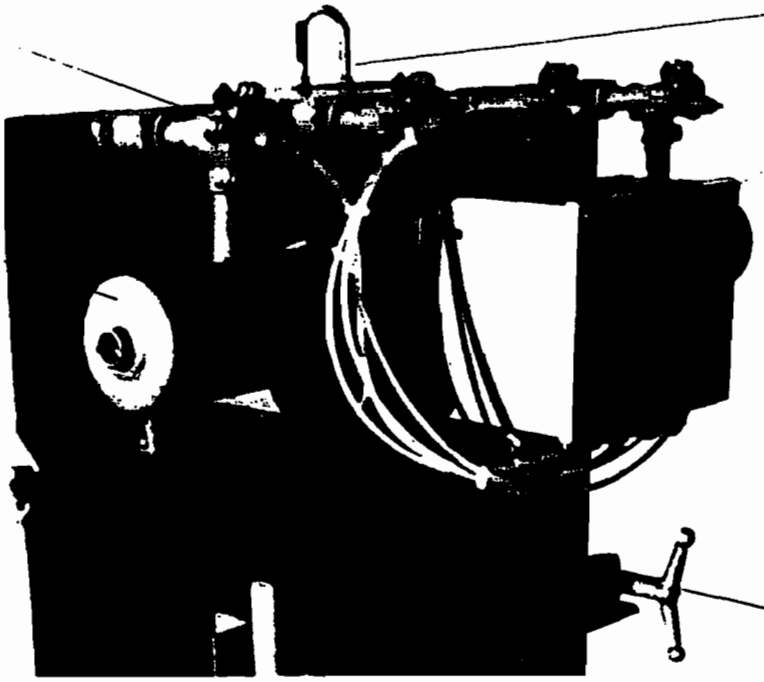


Features

Diaphragm Valves
Furnished in ¾" and 1½" sizes. Designed for maximum shock wave cleaning.

Header
Provides surge capacity for the compressed air system.

Magnehelic Gauge
Monitors differential pressure across the filter bags allowing for an easy method of determining the operating condition.



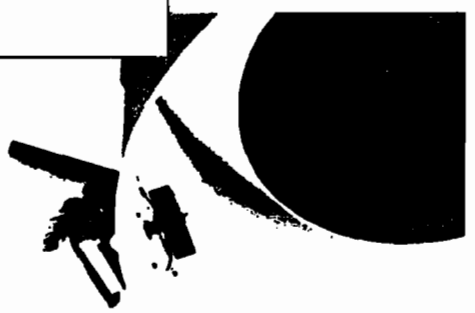
Lifting lugs
shop installed.

Timer Board
Reliable printed circuit board which provides the sequencing for cleaning the dust laden filter bags with compressed air. Features adjustable settings for increasing or decreasing the frequency or duration of the pulse.

Hinged Door with Captive Handles

Factory assembly and pre-wire–Factory wiring of the timer and solenoid valves minimizes installation cost and insures proper hook-up.

Options



Hi Entry Inlet

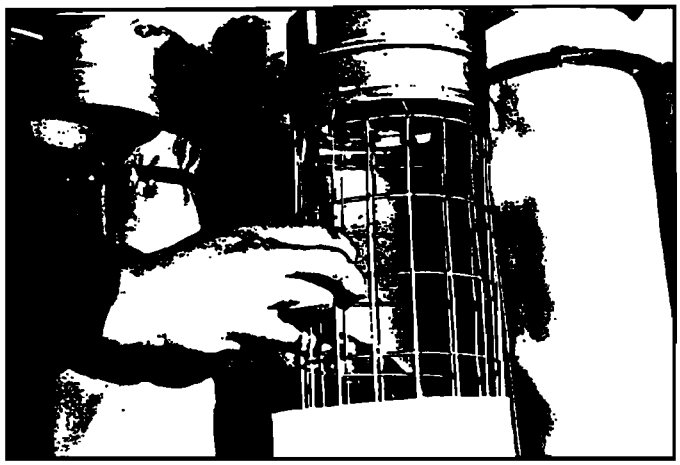
Used in air pollution control systems for light dust particles. The baffled hi entry inlet allows light dust particles to settle into the hopper without fighting an upward air velocity which would occur with conventional hopper entry inlets.

Pneumatic Receiver Section

Used with "AVR" and "RT" filters in pneumatic conveying systems. Features a tangential entry into the sidewall of the cone and an inner cyclone ring to protect the filter bags against direct wear from abrasive materials and high velocity particles.

Bottom Bag Removal

The AVR and AVS pulse jet filters have bottom cage and bag removal from the interior of the housing. This is economical and convenient for small filter units.

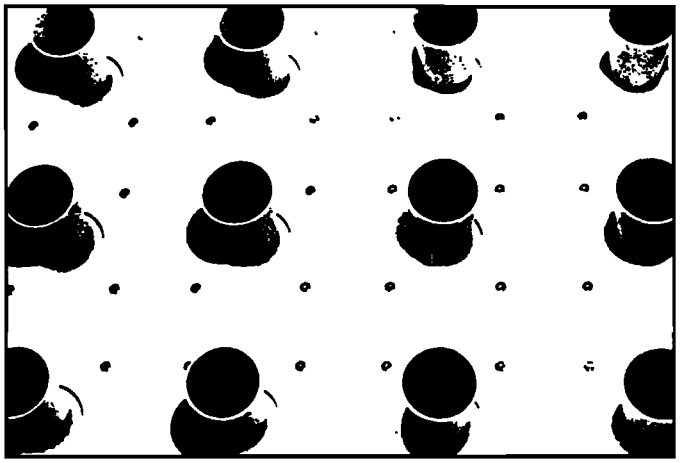


Step 1 The cage is inserted into the full length of the bag.

Step 2 The remainder of the bag is tucked into the cage. being careful not to leave any creases along the rim of the cage.

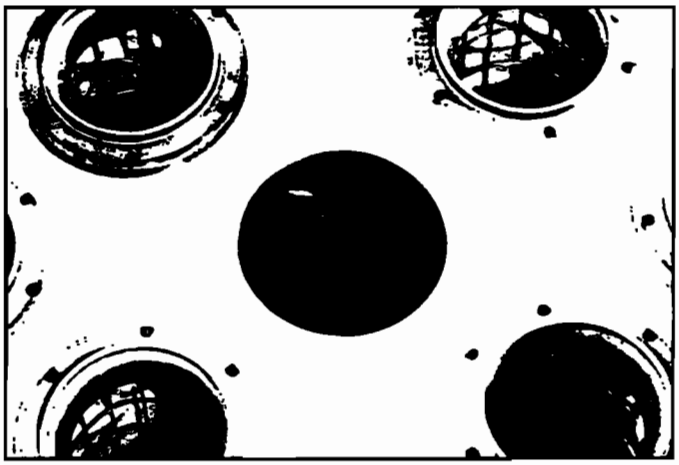
Step 3 The bag and cage are then slid onto the permanently attached bag cup.

Step 4 A positive seal is achieved by used of hose type clamps.

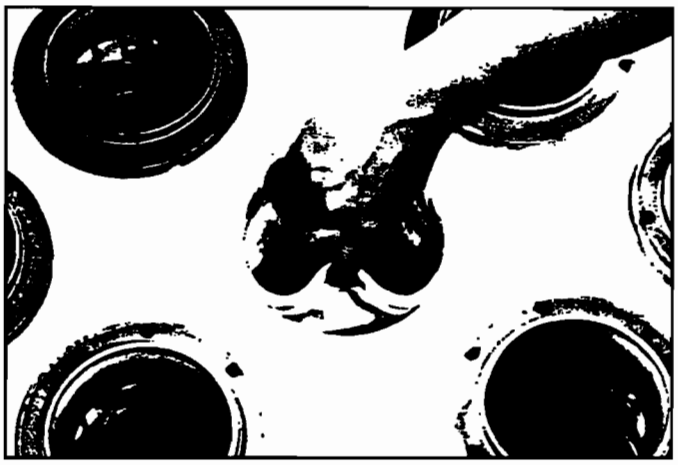


Step 5 The venturies pictured protect the top portion of the bag and assist in improving cleaning efficiency.

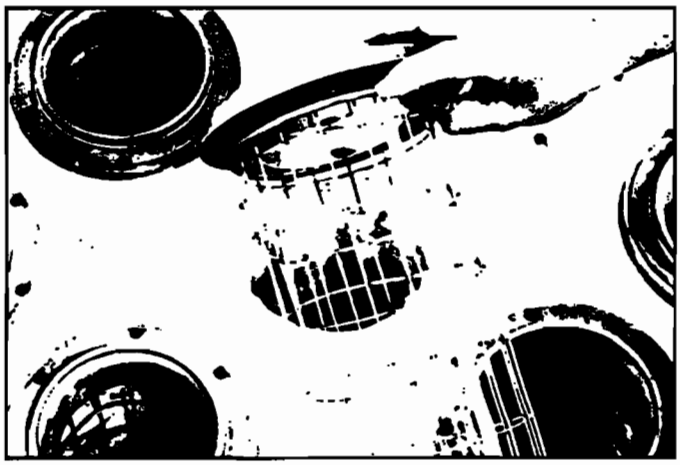
Top Bag Removal



Step 1 Entry into the dirty side of the filter is unnecessary.



Step 2 No tools are required.



Step 3 Snap band with high profile lip seals secure the bag to the tube sheet.

Step 4 The cage snaps into place by merely lowering it into the bag and pushing down.

Step 5 The header pipes are easily installed by sliding the indexed end into the bracket.

Step 6 The header pipes can only fit one way, thus insuring alignment of the blow nozzles.

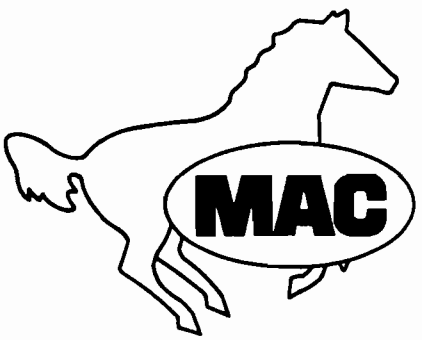
Specifications and Dimensions

Filter Size	Sq. Ft. Cloth Area	Measurements		
		Housing Sq.	*Overall Ht.	Discharge
18AVS9	22	26	51	6
18ST9			53	
36AVS9	44		69	
36ST9			71	
54AVS9	67		87	
54ST9			89	
72AVS9	89		105	
72ST9			107	
18AVS16	39	34½	61	
18ST16				
36AVS16	79		79	
36ST16				
54AVS16	119		97	
54ST16				
72AVS16	159		115	
72ST16				
96AVS16	209		149	
96ST16			139	
18AVS25	62	43	67	8
18ST25		25	69	
36AVS25	124	43	95	
36ST25		25	87	
54AVS25	186	43	103	
54ST25		25	105	
72AVS25	245	43	121	
72ST25		25	123	
96AVS25	332	43	145	
96ST25		25	147	
36AVS36	179	51½	98	10
36ST36		36	90	
54AVS36	269	51½	106	
54ST36		36	108	
72AVS36	358	51½	124	
72ST36		36	126	
96AVS36	478	51½	148	
96ST36		36	150	
36AVS64	318	68½	103	
54AVS64	478		121	
72AVS64	636		138	
96AVS64	850		163	
96LST64		70½	193⅜	
120LST64	1062		217⅜	
144LST64	1280		241⅜	
96LST81	1069	79	203¼	
120LST81	1345		227¼	
144LST81	1620		251¼	
96LST100	1320	87½	208⅛	
120LST100	1660		232⅛	
144LST100	2000		256⅛	
96LST144	1901	104½	222⅞	
120LST144	2390		246⅞	
144LST144	2880		270⅞	

Filter Size	Sq. Ft. Cloth Area	Measurements		
		Housing Sq.	*Overall Ht.	Discharge
18AVR7	17	28	56 9/16	6
18RT7			55 1/4	
36AVR7	34		74 9/16	
36RT7			73 1/4	
54AVR7	52		92 9/16	
54RT7			91 1/4	
72AVR7	69		110 9/16	
72RT7			109 1/4	
18AVR14	34	40	66 5/16	
18RT14			65 1/2	
36AVR14	69		84 15/16	
36RT14			83 1/2	
54AVR14	104		102 5/16	
54RT14			101 1/2	
72AVR14	139		120 15/16	
72RT14			119 1/2	
96AVR14	185		144 5/16	
96RT14			143 1/2	
36AVR21	104	47	90 5/16	8
36RT21			89 1/2	
54AVR21	156		108 15/16	
54RT21			107 1/2	
72AVR21	209		126 15/16	
72RT21			125½	
96AVR21	278		150 15/16	
96RT21			149 1/2	
54AVR32	239	60	116¾	10
54RT32			115 1/2	
72AVR32	318		134¾	
72RT32			133½	
96AVR32	425		158¾	
96RT32			157½	
54AVR39	291	66	121 15/16	
72AVR39	388		139 15/16	
96AVR39	518		163 15/16	
72AVR52		72	145	
96AVR52	690		169	
72AVR62	617	84	155 9/16	
96AVR62	823		179 9/16	
72AVR80	797	93	163 5/16	
96AVR80	1062		187 5/16	

*This dimension is a function of the discharge dimension.

AVR and RT Pneumatic Receiver applications — Height of Receiver Section will vary depending on application and line size.

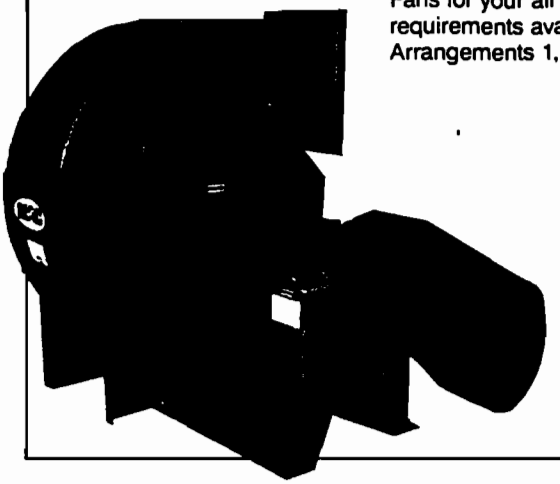


MCF Controlled Fire Filter

The MAC Controlled Fire Filter is the most advanced medium pressure air filter on the market today. The MAC MCF Filters take less horsepower to operate, offer efficient, controlled bag cleaning, require minimal maintenance, and meet the market demand for increased capacities. Patent No. 4,655,799.

Fans

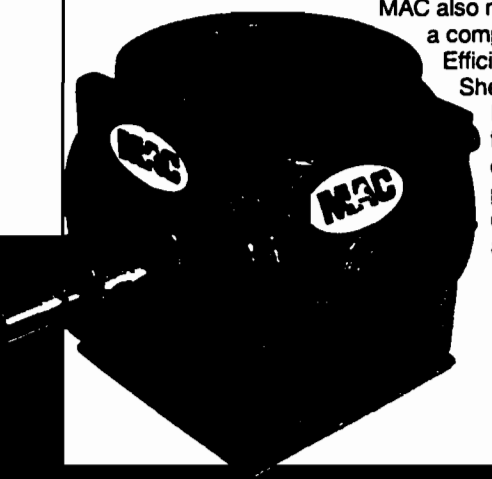
MAC has a complete line of Backward Inclined, High Static, Straight Bladed, and Material Handling Fans for your air handling requirements available in Arrangements 1, 4, and 9.



Contact MAC for your complete line of pneumatic conveying systems and components. Ask about our turnkey services available. We also offer MAC Pneumatic Service Center for quick service on new equipment or replacement parts for your penumatic conveying system.

Airlocks

Pictured is the MAC Heavy Duty Airlock. Our line of Heavy Duty Airlocks are used in a variety of industries. MAC also manufactures a complete line of High Efficiency Airlocks, No Shear Airlocks, and Light Duty Airlocks for your pneumatic conveying needs plus a complete line of airlock accessories.

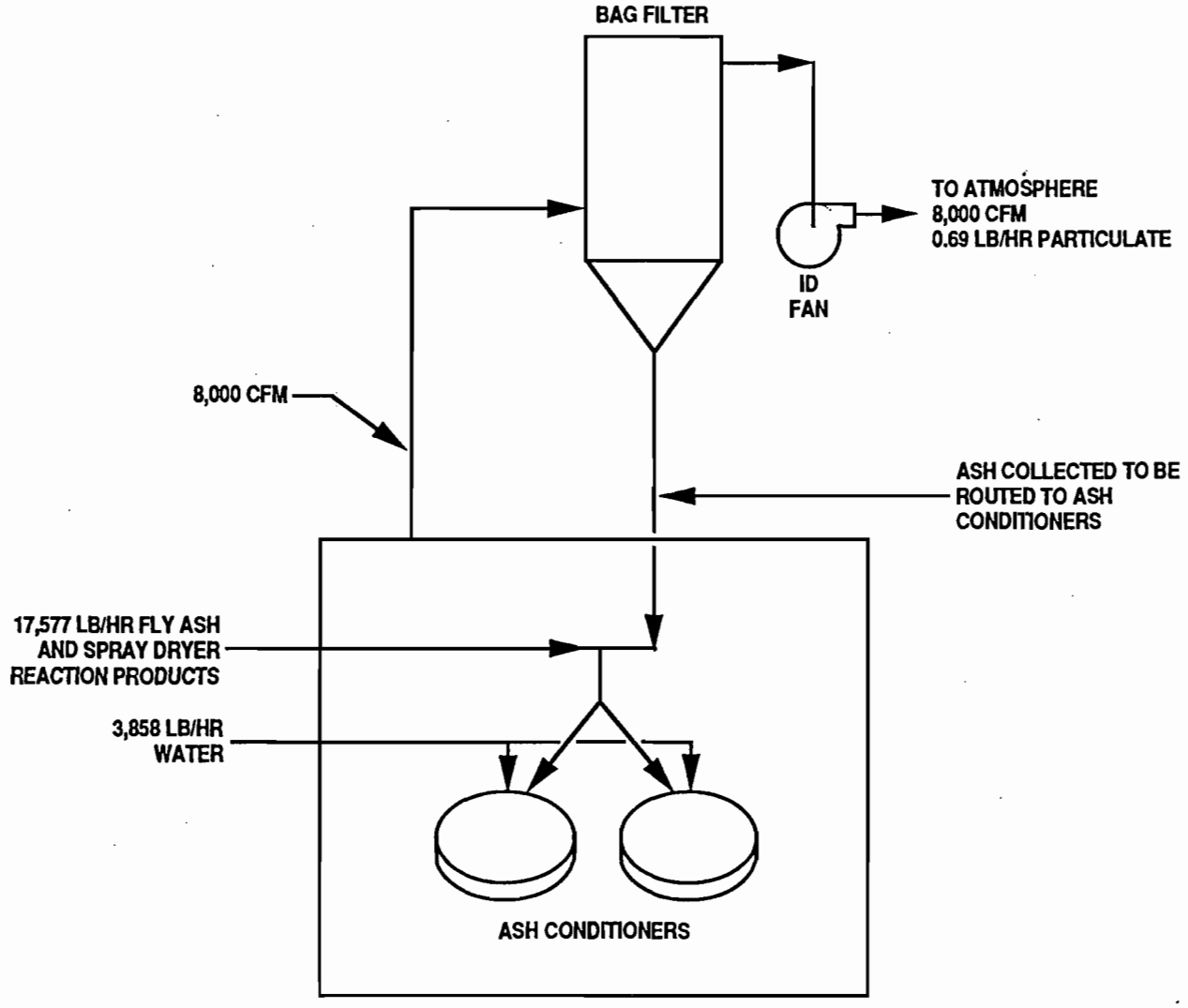


Mac Equipment, Inc.
P.O. Box 205
Sabetha, Kansas 66534
Call Toll Free 1-800-223-2191
or In KS Call Collect (913) 284-2191
FAX (913) 284-3565
PJF/6/89

RPT Pulse Jet Filter

MAC also offers large pulse jet filters. Pictured is a large RPT (reverse pulse top bag removal) operated by compressed air. The RPT filter is designed to operate at a pressure or vacuum of up to 20" of water.

ATTACHMENT C



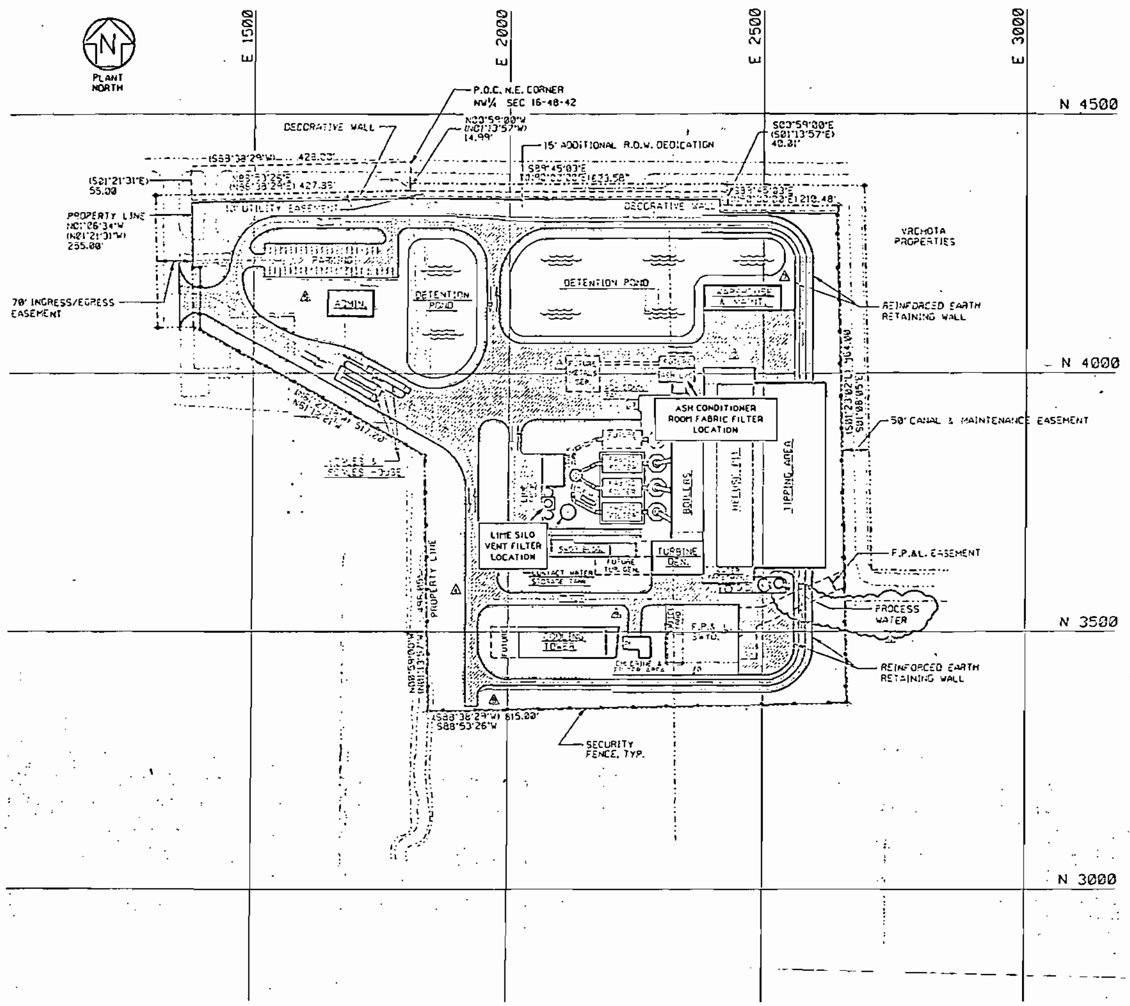
ASH CONDITIONER ROOM

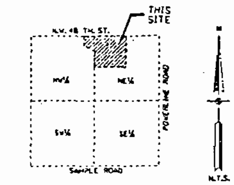
ATTACHMENT C ASH CONDITIONER ROOM
DUST CONTROL FLOW DIAGRAM

KBN

ATTACHMENT D

BEST AVAILABLE COPY





LOCATION MAP

PLOT PLAN LEGEND

- EXISTING FACILITIES
- NEW FACILITIES
- NEW ROADS
- FUTURE FACILITIES

NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE DRAWING 01-32-201.
2. PLAT BEARINGS SHOWN IN PARENTHESES ( ) ON THE PROPERTY BOUNDARY ARE BASED ON WASTE MANAGEMENT INC. PLAT NO. 2-A, SHEET 1 OF 2 AND SHEET 2 OF 2, PLAT BOOK 139 - PAGE 14, BROWARD COUNTY RECORDS; PREPARED BY KEITH & SCHNARS, P.A., SURVEYOR'S CERTIFICATE DATED 2/4/88. OTHER BEARINGS AND ALL COORDINATES SHOWN ARE BASED ON PLANT NORTH WHICH IS ROTATED 20°14'57" CLOCKWISE FROM PLAT BEARINGS.

Rev.	Name	Date
6	[signature]	3-16-90
5	BILL STEGALL	12-07-89
4	BILL STEGALL	10-25-89
2	W.A. RUTHERFORD	08-18-89
1	W.A. RUTHERFORD	08-03-89

RELEASED FOR CONSTRUCTION BY R.E.McCALL DATE 05-21-89

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Danvers, Massachusetts

No.	Revisions	Made	Chk.	Date
5	ADD 24' ACCESS ROAD	J.A.H.	W.L.C.	12-5-89
4	REV. DET. POND	J.R.F.	L.E.C.	10-4-89
3	GENERAL REVISION - ROTATED PLANT	J.R.F.	K.F.J.	9-19-89
2	LOADOUT & PAVEMENT / REV. ROAD	C.R.U.	K.F.J.	8-17-89
2	PARKING & SIDEWALK / REV. ASH	C.R.U.	K.F.J.	8-17-89
2	REV. DET. POND / REV. ADMIN. BLDG.	C.R.U.	K.F.J.	8-17-89
1	GENERAL REVISION	J.R.F.	J. PIGGI	5-2-89
5	REV. LOC. OF PROCESS WATER TANK	[signature]		3-16-90
5	REV. FENCE & F.P. & L. SWITCHYARD	J.A.H.	W.L.C.	12-5-89
5	& REV. COOLING TOWER	J.A.H.	W.L.C.	12-5-89
5	ADD 24' ROAD TO CHLORINE BLDG.	J.A.H.	W.L.C.	12-5-89

Drawing No.	References
01-32-201	GENERAL NOTES, LEGEND & ABBREV.
01-27-132	MECHANICAL-PLANT LAYOUT

SCALE: 1"=100'

PLOT PLAN

NORTH BROWARD RESOURCE RECOVERY FACILITY

RUST International Corporation, Birmingham, Alabama
Contract 21-3457

DRAWING NUMBER 01-32-200 REV. NO. 6

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT North Broward Resource Recovery Inc. (Ash Conditioner)

PROJECT LOG NO. AC 06-186998 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

(Rec# 15985 $200.00

AMOUNT OF FEE PAID _____ COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER _____

9/27/90 (Cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sitig, M. AMOUNT OF FEE REQ'D $ _____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC 06/186998

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Refuse-to-Energy Facility [X] New[1] [ ] Existing[1]

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

COMPANY NAME: Wheelabrator North Broward Inc. COUNTY: Broward

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) Lime Silo Vent Filter

SOURCE LOCATION: Street 2700 Hilton Road (NW 48th Street) City Pompano Beach

UTM: East 583.900 meters North 2,907.600 meters

Latitude 26 ° 17 ' 14 "N Longitude 80 ° 9 ' 35 "W

APPLICANT NAME AND TITLE: Wheelabrator North Broward Inc.

APPLICANT ADDRESS: 4400 S. State Road 7, Fort Lauderdale, FL 33314

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Wheelabrator North Broward Inc.

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: J R Wiegner

James R. Wiegner, Project Manager

Name and Title (Please Type)

Date: 9/26/90 Telephone No. (305) 581-6606

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 judgement, that

[1]See Florida Administration 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 Kennard F. Kosky

Kennard F. Kosky
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 14996 Date: June 5, 1990 Telephone No. (904) 331-9000

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.

A vent filter will be installed on the lime silo to control dust during truck unloading of pebble lime.

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

Start of Construction August 1, 1990 Completion of Construction August 1, 1991

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.)

$15,000

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

Power Plant Site Certification PA 86-22; PSD-FL-112

E. Requested permitted equipment operating time:[1] hrs/day ____; days/wk ____; 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? NA[2]
   a. If yes, has "offset" been applied? _____
   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
   c. If yes, list non-attainment pollutants. _____
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Yes[3]
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes[4]
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? No
   a. If yes, for what pollutants? _____
   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.

[1]Air is displaced through the vent filter only when lime trucks are being pneumatically unloaded. This will not be a continuous operation. Each truck will require approximately 2½ hours to unload. Five to seven trucks will be unloaded each week.

[2]Broward County is nonattainment for ozone; the applicable pollutant is volatile organic compounds (VOCs). This source will not emit VOCs.

[3]BACT for emission type is baghouse as identified by EPA's BACT/LAER clearinghouse documents.

[4]PSD applies since the total particulate matter/PM10 emissions from the resource recovery facility are greater than the significant emission amounts. PSD modeling and BACT analysis were performed for the municipal solid-waste-fired boilers. Because the emissions from this source are extremely low and well less than the significant emission levels, modeling of this source was considered unnecessary.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Pebble Lime			40,000 max*	Attachment C

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

1. Total Process Input Rate (lbs/hr): 40,000

2. Product Weight (lbs/hr): 40,000

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** Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	0.13***	0.021	17-2.610(1)(	b) 23	25.7	4.2	C

[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.

* Each truck will unload at approximately 20,000 lb/hr. Maximum rate will be 40,000 lb/hr if two trucks unload at the same time.
**Based on 5 trucks of lime being received per week with each truck requiring 2½ hours to unload.
***Based on two trucks unloading simultaneously.

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)
Silo Vent Filter	Particulate	99%+	>0.3μm	Att. A
Wheelabrator Air				
Pollution Control				
Model 1016 BA-108				
Jet III				

E. Fuels

Not Applicable

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, others--lbs/hr.

Fuel Analysis:

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 _____ Maximum _____

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

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
Downward Discharge
Stack Height: 102 ft. Stack Diameter: 32 in x 12 in

Gas Flow Rate: 1,500 ACFM _____ DSCFM Gas Exit Temperature: 40 to 100 °F.

Water Vapor Content: 60 to 95 % Velocity: 9.4 FPS
(relative humidity)

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Patholog-ical)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Inciner-ated							
Uncon-trolled (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 devices: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner
[ ] Other (specify)_____

Brief description of operating characteristics of control devices: _____

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

Lime dust collected in the filter will be discharged into lime silo.

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)]
   See Attachment A
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.
   See Attachment A
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
   See Attachment A
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.)
   See Attachment B
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).
   See Attachment A
6. An 8 ½" 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.
   See Attachment C
7. An 8 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).
   See Attachment D
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
   See Attachment D

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

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

[ ] Yes [X] No

Contaminant	Rate or Concentration

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

[X] Yes [ ] No

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency down to 0.01 gr/scf (see EPA BACT/LAER Clearinghouse Documents, 1985, 1986, 1987, 1988, and 1989)

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

Contaminant	Rate or Concentration
Particulate Matter	99+ percent efficiency/0.01 gr/acf

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 Devices:

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 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:

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

Not Applicable

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

B. 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) _____

C. 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.

D. Applicants Maximum Allowable Emission Data

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

E. 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.

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

G. 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.

H. 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.

ATTACHMENT A

LIME SILO VENT FILTER
AIR PERMIT CALCULATIONS

A. Calculate lb/hr particulate emission using 0.01 grain/ACF and assuming two trucks maximum unloading pneumatically at 750 ACF/min each (1500 ACFM total).

1500 ACF/min X 0.01 gr/acf / 7000 gr/lb X 60 min/hr = 0.13 lb/hr

B. Calculate tons/year(t/yr) particulate emissions Using 1,493 lb/hr normal lime usage (from WAPC mass balances) for three boilers.

1493 lb/hr X 24 hr/day X 7 days/week / 2000 lb/ton = 125 tons/week lime usage

Using 25 ton capacity trucks

125 tons/week / 25 tons/truck = 5 trucks/week

Using 750 ACF/min per truck and 2.5 hours to unload each truck

750 ACF/min X 0.01 gr/acf / 7000 gr/lb X 150 min/truck = 0.16 lb/truck

0.16 lb/truck X 5 trucks/week X 52 weeks/yr / 2000 lb/ton = 0.021 tons/yr

C. Calculate lb/hr potential (uncontrolled) emissions using 2.0 grain/ACF and assuming two trucks maximum unloading pneumatically at 750 ACF/min each (1500 ACFM total).

1500 ACF/min X 2.0 gr/acf / 7000 gr/lb X 60 min/hr = 25.7 lb/hr

D. Calculate tons/year(t/yr) uncontrolled particulate emissions using 750 ACF/min per truck and 2.5 hours to unload each truck

750 ACF/min X 2.0 gr/acf / 7000 gr/lb X 150 min/truck = 32.1 lb/truck

32.1 lb/truck X 5 trucks/week X 52 weeks/yr / 2000 lb/ton = 4.2 tons/yr

E. Calculate exit velocity for 12" X 32" downward discharge

12" X 32" / 144sq in. per sq. ft= 2.67 ft2
1500 ft3/min / 2.67 ft2 / 60 sec/min = 9.4 ft/sec

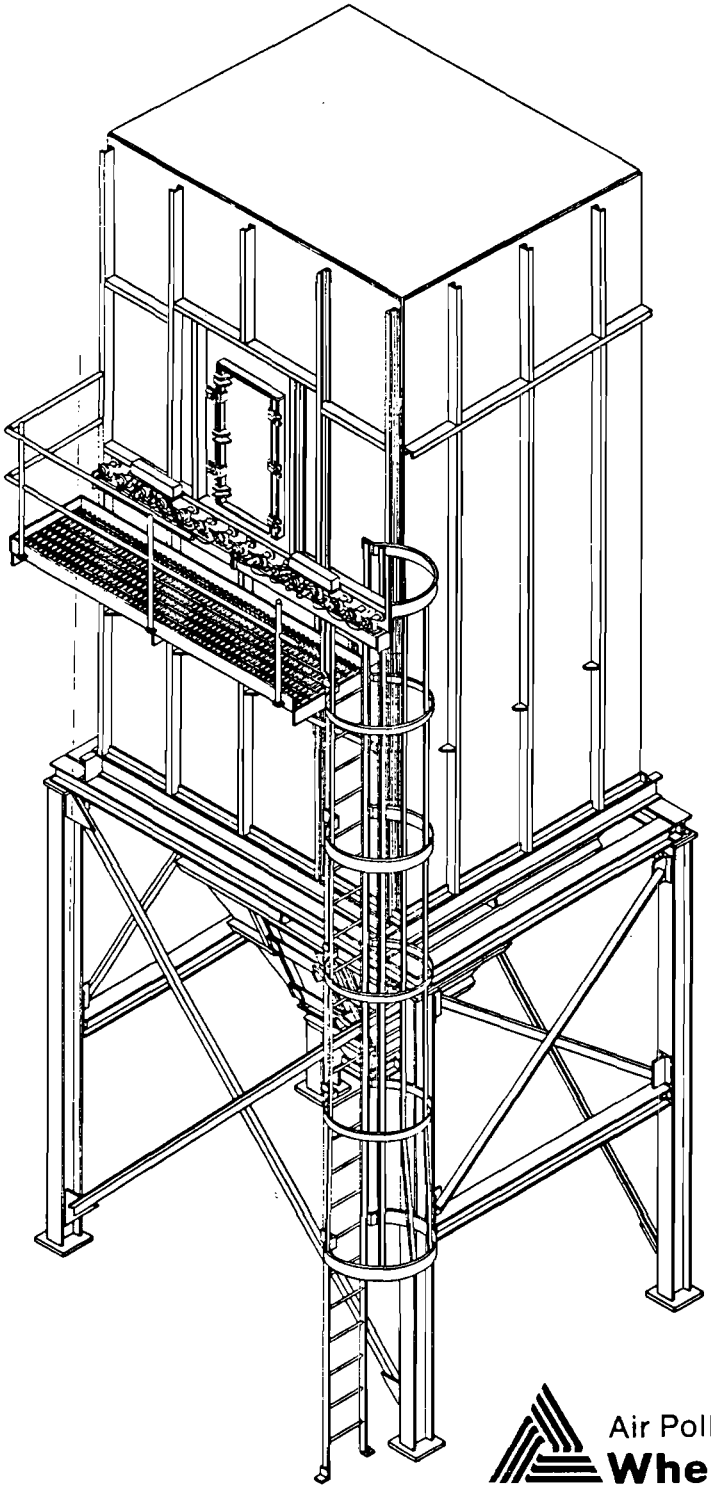
By:
Checked:

ATTACHMENT B

1-22-82

JET III™

THE NEW GENERATION OF DUST COLLECTORS



Air Pollution Control Division
Wheelabrator-Frye Inc.

JET III

The new generation of dust collectors

Someday, all dust collectors may offer the benefits of JET III:

- High collection efficiencies
- Low first cost
- Low maintenance cost
- Low operating cost

Why wait for someday?

JET III is a wholly-new design in pulse-jet dust collectors, offering the high collection efficiencies required by increasingly stringent environmental regulations, plus true economy for the plant owner. Economy is achieved by a new, state-of-the-art system designed to reduce maintenance, labor, parts and energy costs.

Available in a full range of standard cloth areas, JET III also offers flexible sizing and efficient, space-saving installation. Variation of the tube sheet/bag length can be tailored to a particular application and dust condition. This flexibility enables a relatively small-sized housing to be employed on large-volume jobs, lowering capital costs. Smaller modules (1,140 to 5,570 ft^2 of cloth area) are square in plan, and large-volume modules (4,910 to 12,800 ft^2 of cloth area) are rectangular. Both designs feature specially-designed inlet connections for efficient gas flow and long filter bag life.

Access to the unit is provided by an integral, full-height, weather-proof, walk-in, clean air plenum. Where heat or other factors present special problems, or where bags in excess of 144 inches long are used, manually operated, hinged roof doors are available.

JET III housings are constructed of 10-gauge hot rolled sheet steel stiffened for 20" WG. All JET III units are completely fabricated before shipment for easy, economical field erection. Square modules are shipped as assembled, one-piece units, complete with flanged inlet and outlet connections. Due to restrictions in certain geographic areas, the air header and valve assemblies may be shipped as a sub-assembly for field installations. The large-volume modules are shipped in three, pre-matched sections for easy job-site completion.

3 important ways better

While sizing, access and housing construction of a dust collector are important, the critical features are the internals. Inside, JET III shows its superiority in these exclusive areas:

1. Tube sheet and bag attachment
2. Venturi and cage
3. Pulse cleaning system

The following pages describe these exclusive features of JET III that yield real benefits in operation and economy for you.

JET III—3 important ways better

#1—Tube Sheet & Bag Attachment

- Die-formed cups for added strength
- Positive seal against dust leakage
- Fast bag attachment..without tools
- Simple. one-step bagging
- Improves clean-side work area

Tube Sheet:

JET III uses the Wheelabrator-Frye drawn-cup tube sheet. previously available only in higher-priced collectors. The bag cups are drawn. eliminating welds which could fail or leak. The tube sheet is seal-welded into the housing to effect a positive seal against dust penetration. Also. the tube sheet's flat, smooth upper surface simplifies maintenance and housekeeping.

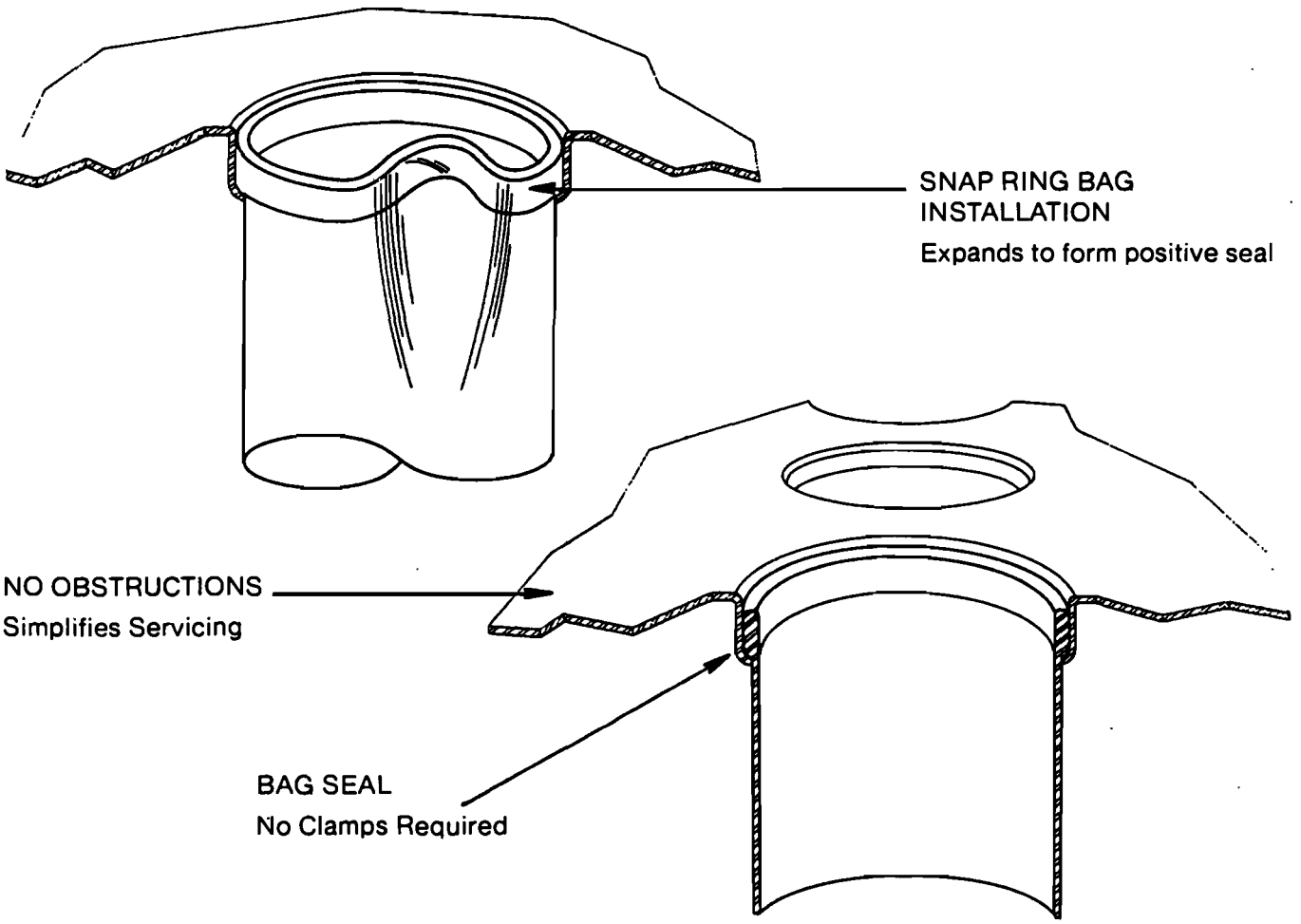
Bag Attachment:

JET III tube sheet features patented Wheelabrator-Frye "snap-ring" bag sealing.

Unlike other designs where bag installation often is a two-man. two-step operation external to the filter. JET III offers a fast. one-man. one-step process. Our tube sheet. acting as a natural bagging fixture. allows cage insertion directly into the tube sheet and bags.

This simple. one-step attachment creates the only seal necessary. eliminating the need for secondary seals such as "O" rings or gaskets. In fact. it would be difficult to install a bag which did not seal properly. On major change-outs. bags can be dropped to the dirty side hopper below. to maintain a true. clean-side work environment.

JET III filter bags are supplied by Wheelabrator-Frye's own W.W. Criswell Division. A complete range of high-quality bags is available in all popular synthetic fibers. including high-temperature fabrics.



JET III—3 important ways better

#2—Venturi and Cage

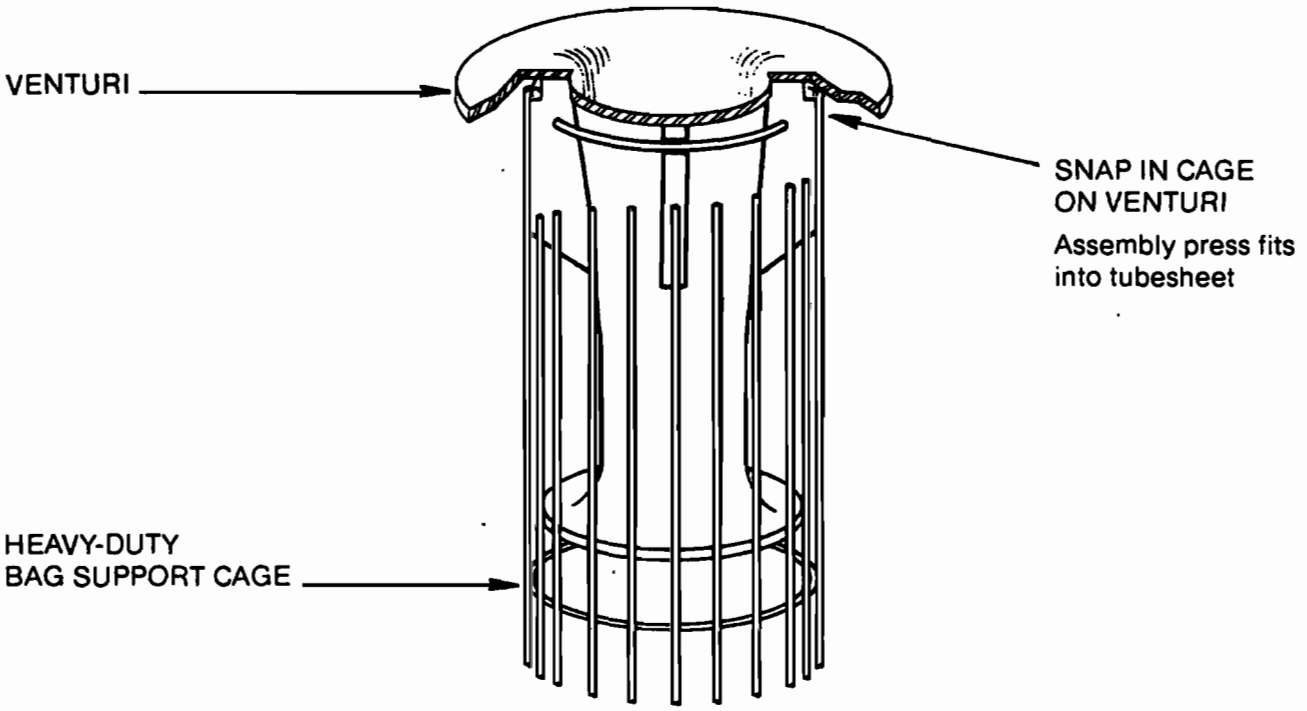
- Designed to save compressed air costs
- Venturi self-aligns for easy installation and efficient pulse cleaning
- Simple interlock for rapid assembly
- Quality bag support cages

The high-gain throat of JET III's newly-designed venturi is capable of cleaning more surface area of filter media with less compressed air. This provides effective cleaning of JET III's 6" diameter bags up to 14' long while the collector is on stream. JET III's venturi may be supplied in aluminum or cast iron. The venturi is self-aligning in the bag support cage and tube sheet for easy installation and maximum cleaning efficiency. No fittings, clamps, gaskets or attachments are required to secure the assembly.

JET III features the industry's simplest yet most effective venturi and cage assembly. Assembly requires only a single snap interlock of the venturi within the cage. The weight of the cage is then supported by the venturi flange.

The standard bag support cage is made of heavy-gauge wire to provide maximum support for long filter bag life. This rugged construction maintains alignment and critical dimensional relationship between bag and cage.

Cages are specifically designed to withstand rough handling during installation and subsequent bag change-outs. Carbon steel is standard. Stainless steel cages and corrosion-resistant coatings are available for special applications.



JET III—3 important ways better

#3—Pulse Cleaning System

- Simple design uses few parts
- Easy to maintain
- Saves energy costs

JET III features a uniquely designed pulse-jet cleaning system. Resulting from extensive research, JET III's pulse cleaning hardware is designed to clean with minimum air consumption and maximum energy savings. More filter cloth area is cleaned per horsepower than in previous designs. Field tested on critical industry applications, the JET III cleaning system can also contribute to prolonging filter bag life. JET III's header, air valves and manifold combine to offer a highly effective cleaning system.

1. JET III Header

The compressed air header is square in section for space saving, positive alignment and convenient bolt-on of air valves. This eliminates leakage common to other designs.

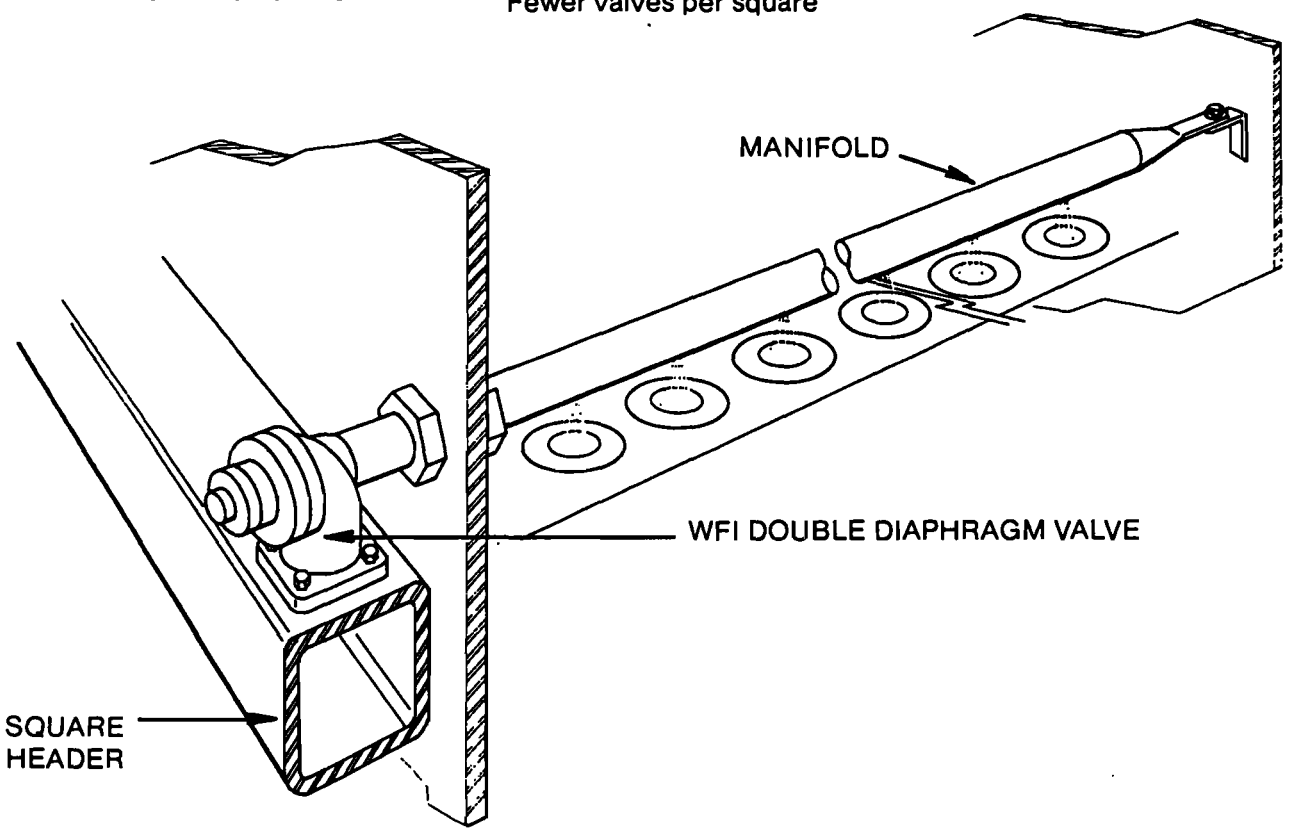
The header assemblies are sectioned to permit local isolation for maintenance without shutting down the total system. These sectioned headers provide rapid depletion of the header pressure. The system requires a maximum line pressure of 90 PSI for energy conservation.

2. JET III Double-Diaphragm Air Valve

Special Wheelabrator-Frye double-diaphragm valves are fitted to square headers. This air dump valve, matched to the new venturi, provides the air for cleaning up to 15 bags per row. Fewer valves per square foot of cloth mean less maintenance and fewer parts in inventory. The valve also allows the convenience of remote pilot control (for low-cost electrical installation) with no loss of efficiency across the air valve. The air valve is simple to replace should this ever become necessary.

3. JET III Manifold

The 1½"-diameter manifold pipe is jig-drilled for positive alignment of the blow holes with the venturi centers to assure maximum efficiency. Fit of the manifold within the plenum is positive to maintain this alignment. For bag inspection and/or removal, the manifold can be removed with a minimum of effort and no special tools.



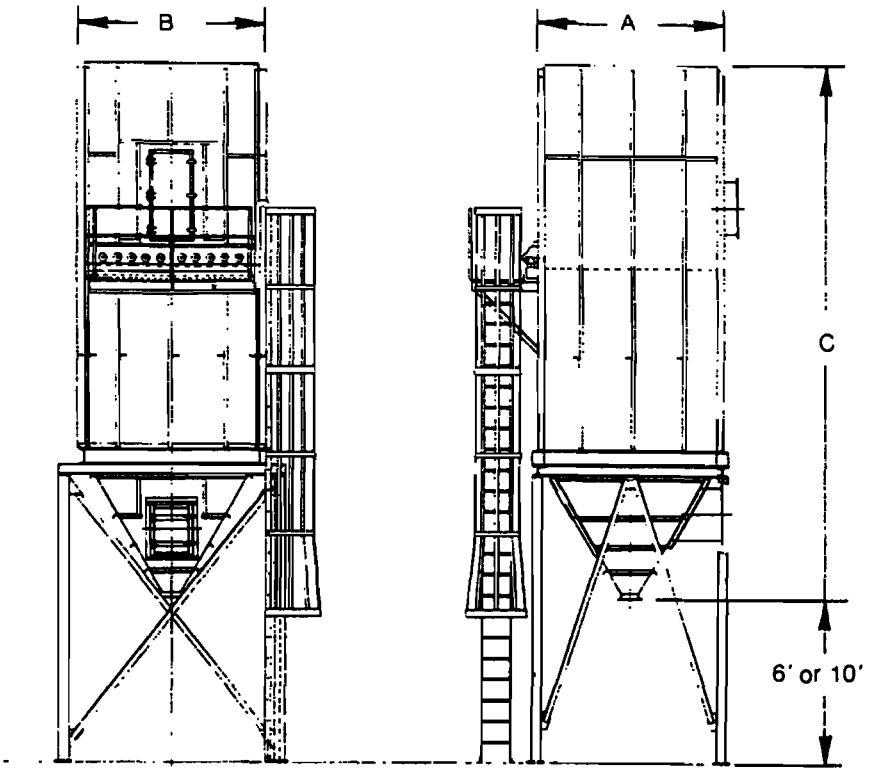
JET III

cloth areas ranging
from 1,140 to
5610 square feet.

Available with full height walk-in plenums (illustrated) type 'TA' or with multiple hinged roof doors. Type 'RA'.

NOTE:

'C' dimensions for all units with bag lengths up to and including 144" include walk-in plenums. 'C' dimensions for units with bag lengths of 156" or 168" include roof doors. Dimensions subject to change without notice.



Square Modules (TA & RA) Filter Areas Sq. Ft.

Model	No. of Bags	Filter Area/Module Bag Length in Inches					
		108"	120"	132"	144"	156"	168"
99	81	1140	1270	1390	1520	—	—
1111	121	1700	1900	2080	2270	—	—
1313	169	2380	2650	2910	3170	3450	3720
1515	225	3170	3530	3880	4230	4590	4950
1715	255	3590	4000	4380	4790	5200	5610

Square Modules 'TA' Overall Dimensions

Model	'A'	'B'	'C' — Dimension Based on Bag Length in Inches					
			108	120	132	144	156	168
99	6'-5"	6'-5"	24'-0"	26'-0"	28'-0"	30'-0"	—	—
1111	7'-9"	7'-9"	25'-2"	27'-2"	29'-2"	31'-2"	—	—
1313	9'-1"	9'-1"	26'-4"	28'-4"	30'-4"	32'-4"	27'-6"	28'-6"
1515	10'-5"	10'-5"	27'-5"	29'-5"	31'-5"	33'-5"	28'-7"	29'-9"
1715	11'-8'-	10'-5"	28'-6"	30'-6"	32'-6"	34'-6"	29'-8"	30'-8"

Square Modules 'RA' Overall Dimensions

Model	'A'	'B'	'C' — Dimension Based on Bag Length in Inches					
			108	120	132	144	156	168
99	6'-5"	6'-5"	21'-2"	22'-2"	23'-2"	24'-2"	—	—
1111	7'-9"	7'-9"	22'-4"	23'-4"	24'-4"	25'-4"	—	—
1313	9'-1"	9'-1"	23'-6"	24'-6"	25'-6"	26'-6"	27'-6"	28'-6"
1515	10'-5"	10'-5"	24'-7"	25'-7"	26'-7"	27'-7"	28'-7"	29'-7"
1715	11'-8"	10'-5"	25'-8"	26'-8"	27'-8"	28'-8"	29'-8"	30'-8"

NOTE! Dimensions not to be used for construction purposes.

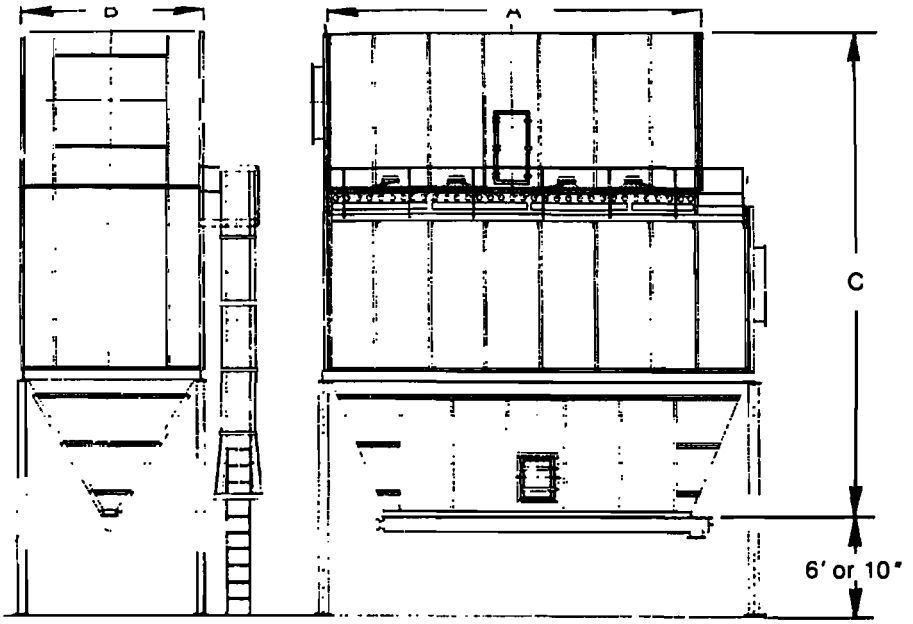
Large-Volume JET III

cloth areas ranging from 4940 to 12870 square feet.

Available with full height walk-in Plenums (illustrated Type "TA" or with multiple hinged roof doors type "RA"

Note:

"C" dimensions for all units with bag lengths up to and including 144" include walk-in plenums "C" dimensions for units with bag lengths of 156" or 168" include roof doors. Dimensions subject to change without notice.



Rectangular Modules — 'TA & RA' — Filter Areas in Sq. Ft.

Model	No. of Bags	Filter Area/Module Bag Lengths In Inches		
		120	144	168
2115	315	4940	5920	6930
2415	360	5650	6770	7920
2715	405	6360	7610	8910
3015	450	7060	8460	9900
3315	495	7770	9320	10890
3615	540	847	10150	11880
3915	585	9180	11000	12870

Rectangular Modules 'TA' Overall Dimensions

Module	'A'	'B'	'C' Dimension Based on Bag Length In Inches		
			120	144	168
2115	17'-4"	10'-5"	29'-1"	33'-1"	37'-1"
2415	19'-4"	10'-5"	29'-1"	33'-1"	37'-1"
2715	22'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3015	24'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3315	27'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3615	29'-4"	10'-5"	29'-1"	33'-1"	37'-1"
3915	32'-4"	10'-5"	29'-1"	33'-1"	37'-1"

Rectangular Modules 'RA' Overall Dimensions

Model	A	B	'C' Dimension Based on Bag Length In Inches		
			120	144	168
2115	17'-4"	10'-5"	25'-5"	27'-5"	29'-5"
2415	19"-4"	10'-5"	25'-5"	27'-5"	29'-5"
2715	22"-4"	10'-5"	25'-5"	27'-5"	29'-5"
3015	24'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3315	27'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3615	29'-4"	10'-5"	25'-5"	27'-5"	29'-5"
3915	32'-4"	10'-5"	25'-5"	27'-5"	29'-5"

NOTE! Dimensions not to be used for construction purposes.

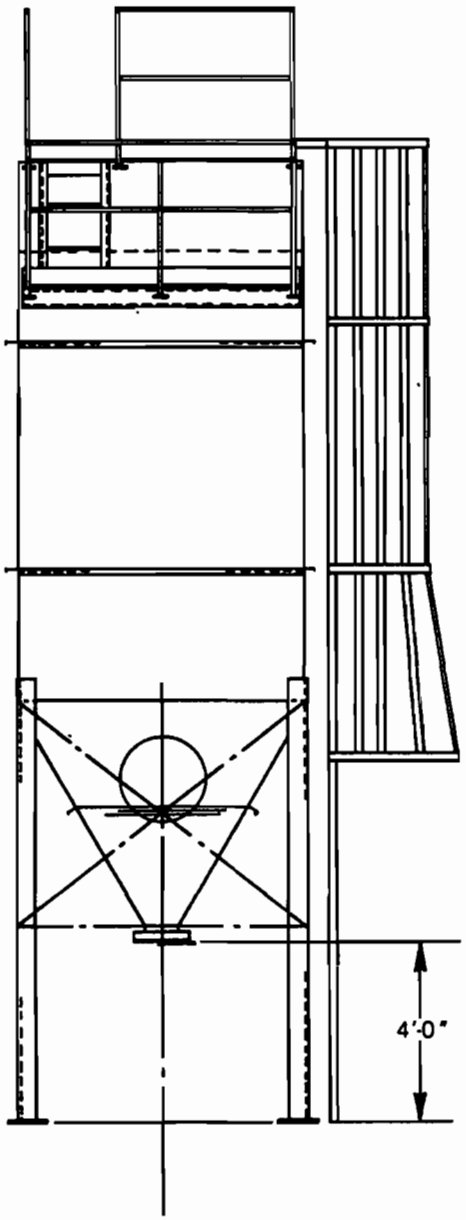
Type 1000RA (Roof Access)

The Type 1000 JET III Pulse-Jet Fabric Filter by Wheelabrator-Frye is available in six different sizes with filter areas between 226 and 1142 square feet. Type 1000 modules are sized for the smaller system volumes.

JET III is a wholly new design in fabric filters, offering high collection efficiency with true economy in terms of initial cost, operation, and maintenance.

Type 1000 collectors are square for convenience in connecting to the system ductwork. All JET III Pulse-Jet Fabric Filters provide clean side access to the filter section via hinged roof doors.

The JET III design employs a unique tubesheet, filter bag, and support cage assembly which combine to save time when servicing the filter section and to ensure a positive seal against dust penetration in operation. Rebagging is a simple, one-man operation performed outside the dust environment and without the use of special tools.



Front elevation.

Equipment Sizes

Model	No. Bags	Filter Area (sq. ft.)	Sq. Housing Size	Hopper Clearance	Overall Height* Incl. Handrailing
1016/108	16	226	36"	4'-0"	21'-0"
1025/108	25	353	44"	4'-0"	21'-6"
1036/108	36	507	52"	4'-0"	22'-2"
1049/108	49	691	60"	4'-0"	22'-10"
1064/108	64	902	68"	4'-0"	23'-5"
1081/108	81	1142	76"	4'-0"	24'-2"

*Includes support legs.

Features

Tubesheet—Wheelabrator-Frye's own integrally drawn bag colors for positive bag sealing.

Snap Ring Bag—With tubesheet, provides simple, one-step bagging operation. No additional sealing required. No tools necessary.

Venturi and Bag Support Cage—High gain throat design venturi improves cleaning efficiency and saves energy. Venturi and cage interlock for single piece assembly into the filter bag, no prior assembly of these components outside the filter housing is necessary. Venturi and cage are self-aligning within the tubesheet and bag. No clamps or hold down devices are required.

JET III Pulse Cleaning System—The square, space-saving compressed air header employs Wheelabrator-Frye's special bolt on air valves for leakproof alignment with the air distribution manifolds. JET III utilizes remote pilot valves for low-cost field wiring.

JET III Timer—The Type 1000 employs a solid state electronic timer in Nema IV enclosure with 110 volt AC solenoids.

Auxiliaries—All modules are supplied with standard access ladders, walkways, and handrail to meet OSHA requirements. A complete range of hopper valves and material handling systems are available.

Standard Construction—JET III Type 1000 modules are all welded and fabricated of 12 gauge carbon steel stiffened for 15" w.g.

Shipment—JET III Type 1000 modules are shipped as one-piece units, including support legs, for simple, low-cost installation.

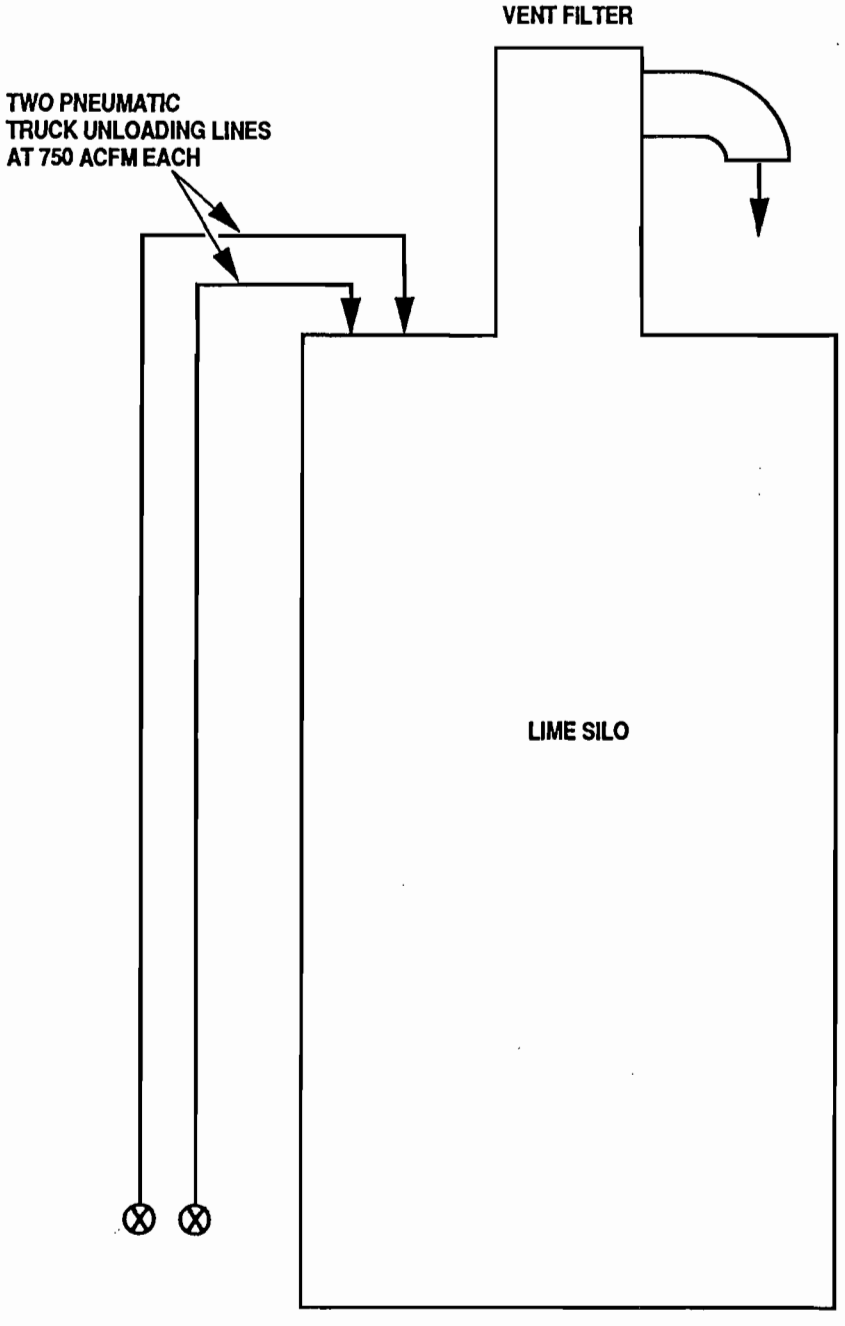
Air Pollution Control Division
Wheelabrator-Frye Inc.

600 Grant Street
Pittsburgh, PA 15219
(412) 288-7300

MEMBER
IGCI

ATTACHMENT C

KBN.12/WHEEL.1
6/90C



TO ATMOSPHERE
1,500 ACFM MAX
0.13 LB/HR PARTICULATE

NOTE: LIME DUST COLLECTED
WILL BE DISCHARGED
INTO LIME SILO.

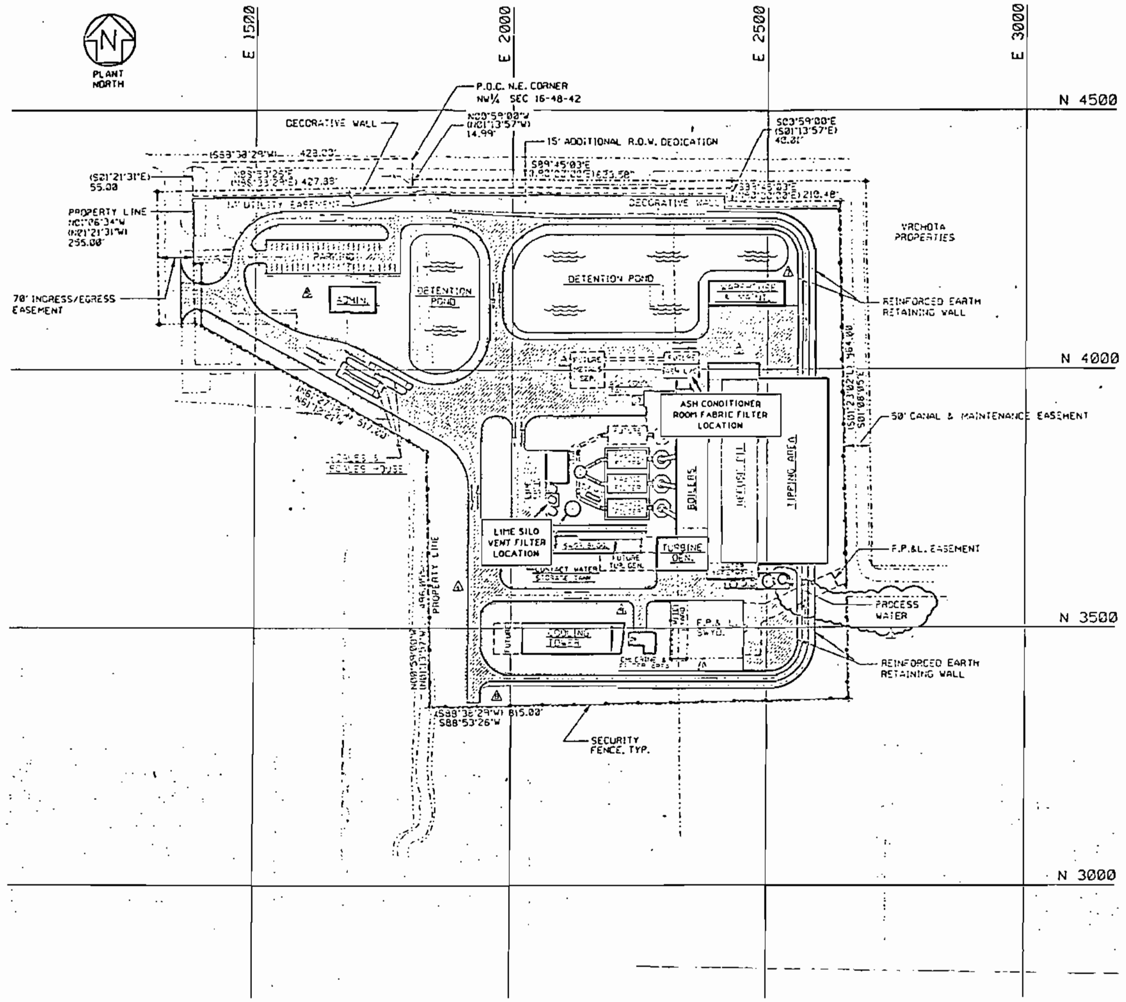
PROCESS RATE WILL BE
20,000 LB/HR PER FILL LINE
WHEN TRUCKS ARE UNLOADING.

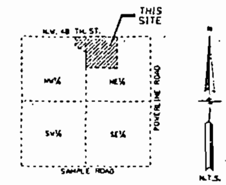
ATTACHMENT C LIME SILO DUST CONTROL FLOW DIAGRAM

KBN

ATTACHMENT D

BEST AVAILABLE COPY





LOCATION MAP

PLOT PLAN LEGEND

(dotted box)	EXISTING FACILITIES
(solid box)	NEW FACILITIES
(hatched box)	NEW ROADS
(dashed box)	FUTURE FACILITIES

NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE DRAWING 01-32-201.
2. PLAT BEARINGS SHOWN IN PARENTHESES ( ) ON THE PROPERTY BOUNDARY ARE BASED ON WASTE MANAGEMENT INC. PLAT NO. 2-A, SHEET 1 OF 2 AND SHEET 2 OF 2, PLAT BOOK 138 - PAGE 14, BROWARD COUNTY RECORDS: PREPARED BY KEITH & SCHNARS, P.A., SURVEYOR'S CERTIFICATE DATED 2/4/88. OTHER BEARINGS AND ALL COORDINATES SHOWN ARE BASED ON PLANT NORTH WHICH IS ROTATED 00°14'57" CLOCKWISE FROM PLAT BEARINGS.

6	[signature]	3-16-90
5	BILL STEGALL	12-07-89
4	BILL STEGALL	10-25-89
3	W.A. RUTHERFORD	08-18-89
2	W.A. RUTHERFORD	08-03-89

RELEASED FOR CONSTRUCTION BY R.E.McCALL DATE 05-01-89

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Danvers, Massachusetts

NO.	REVISIONS	MADE	CKD.	DATE
5	ADD 24' ACCESS ROAD	J.A.H.	W.L.C.	12-5-89
4	REV. DET. POND	J.R.F.	L.E.C.	10-4-89
3	GENERAL REVISION - ROTATED PLANT	J.R.F.	K.F.J.	10-19-89
2	LOADOUT & PAVEMENT, REV. ROAD	C.R.W.	K.F.J.	10-17-89
2	PARKING & SIDEWALK, REV. ASH	C.R.W.	K.F.J.	10-17-89
2	REV. DET. POND, REV. ADMIN. BLDG.	C.R.W.	K.F.J.	10-17-89
1	GENERAL REVISION	J.R.F.	J. PIGGI	8-2-89
5	REV. LOC. OF PROCESS WATER TANK			13-16-90
5	REV. FENCE & F.P. & L. SWITCHYARD	J.A.H.	W.L.C.	12-5-89
5	& REV. COOLING TOWER	J.A.H.	W.L.C.	12-5-89
5	ADD 24' ROAD TO CHLORINE BLDG.	J.A.H.	W.L.C.	12-5-89

DRAWING NO.	REFERENCES
01-32-201	GENERAL NOTES, LEGEND & ABBREV.
01-27-102	MECHANICAL-PLANT LAYOUT

SCALE: 1"=100' DATE

DESIGN	J.D.HYDE	4/27/89
DRAWN BY	J.R.FLOWERS	4/28/89
CHECKED BY	D.MILNER	5/1/89
APPROVED	J.D.HYDE	5/1/89
SUBMITTED BY	J.E.DAVIS	5/1/89

PLOT PLAN

NORTH BROWARD RESOURCE RECOVERY FACILITY

RUST International Corporation, Birmingham, Alabama
Contract 21-3457

DRAWING NUMBER 01-32-200 REV. NO. 6

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. James R. Wiegner, Project Mgr.
Wheelabrator North Broward, Inc.
4400 S. State Road 7
Ft. Lauderdale, FL 33314

4. Article Number

P 256 396 223

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 — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

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

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

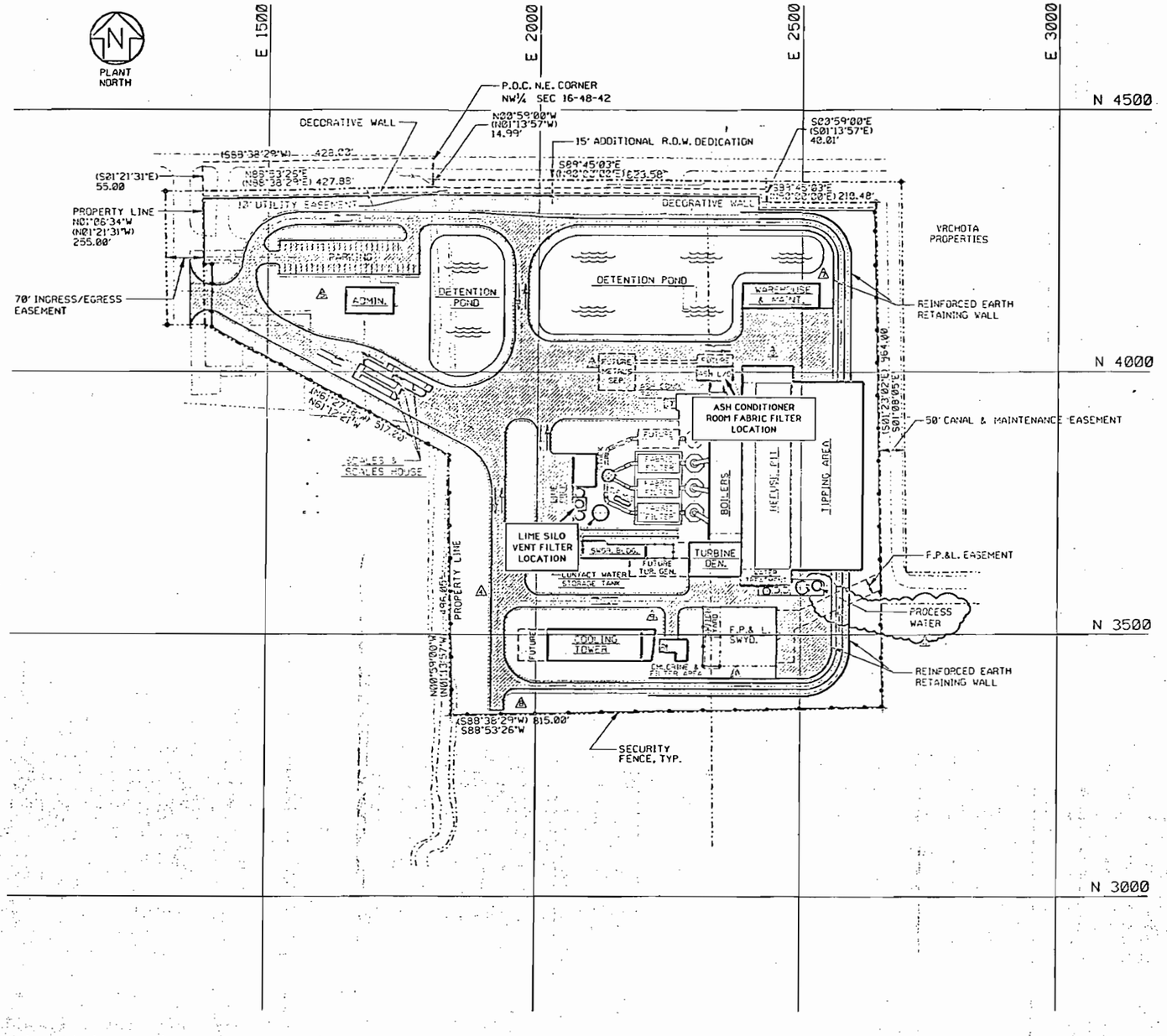
P 256 396 223

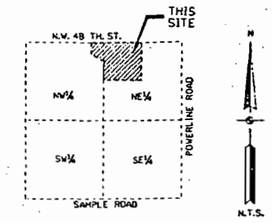
RECEIPT FOR CERTIFIED MAIL

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

Sent to Mr. James R. Wiegner, N. & S. Broward	
Street and No. 4400 S. State Rd. 7	
P.O., State and ZIP Code Ft. Lauderdale, FL 33314	
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: 10-26-90 Permit: AC 06-186997, -998 AC 06-187000, -001	

PS Form 3800, June 1985 ☆U.S.G.P.O. 1989-234-555





LOCATION MAP

PLOT PLAN LEGEND

- EXISTING FACILITIES
- NEW FACILITIES
- NEW ROADS
- FUTURE FACILITIES

NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE DRAWING 01-32-201.
2. PLAT BEARINGS SHOWN IN PARENTHESES ( ) ON THE PROPERTY BOUNDARY ARE BASED ON WASTE MANAGEMENT INC. PLAT NO. 2-A, SHEET 1 OF 2 AND SHEET 2 OF 2, PLAT BOOK 138 - PAGE 14, BROWARD COUNTY RECORDS; PREPARED BY KEITH & SCHNARS, P.A., SURVEYOR'S CERTIFICATE DATED 2/4/88. OTHER BEARINGS AND ALL COORDINATES SHOWN ARE BASED ON PLANT NORTH WHICH IS ROTATED 00°14'57" CLOCKWISE FROM PLAT BEARINGS.

NO.	REVISIONS	MADE	CKD.	DATE
5	⚠ REV. LOC. OF PROCESS WATER TANK	JAH	WLC	12-16-89
5	⚠ REV. FENCE & F.P. & L. SWITCHYARD & REV. COOLING TOWER	JAH	WLC	12-5-89
5	⚠ ADD 24' ROAD TO CHLORINE BLDG.	JAH	WLC	12-5-89
5	⚠ ADD 24' ACCESS ROAD	JAH	WLC	12-5-89
4	⚠ REV. DET. POND	JRF	LEC	10-4-89
3	⚠ GENERAL REVISION - ROTATED PLANT	JRF	KFJ	9-19-89
2	LOADOUT & PAVEMENT ⚠ REV. ROAD	CRW	KFJ	8-17-89
2	PARKING & SIDEWALK ⚠ REV. ASH	CRW	KFJ	8-17-89
2	⚠ REV. DET. POND ⚠ REV. ADMIN. BLDG.	CRW	KFJ	8-17-89
1	⚠ GENERAL REVISION	JRF	J. PIGG	8-2-89

DRAWING NO.	REFERENCES
01-32-201	GENERAL NOTES, LEGEND & ABBREV.
01-27-102	MECHANICAL-PLANT LAYOUT

NO.	DATE	
6	3-16-90	Bill Stegall
5	12-07-89	BILL STEGALL
4	10-05-89	BILL STEGALL
3	08-18-89	W.A. RUTHERFORD
2	08-03-89	W.A. RUTHERFORD
1		

RELEASED FOR CONSTRUCTION
BY R.E.McCALL DATE 05-01-89

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Danvers, Massachusetts

John Ohde 4-6-90

		DATE
DESIGN	J.D.HYDE	4/27/89
DRAWN BY	J.P.FLOWERS	4/28/89
CHECKED BY	D.MILNER	5/1/89
SUPV'SN	J.D.HYDE	5/1/89
SUBMTD BY	J.E.DAVIS	5/1/89
APP'D BY		
APP'D BY		
APP'D BY		

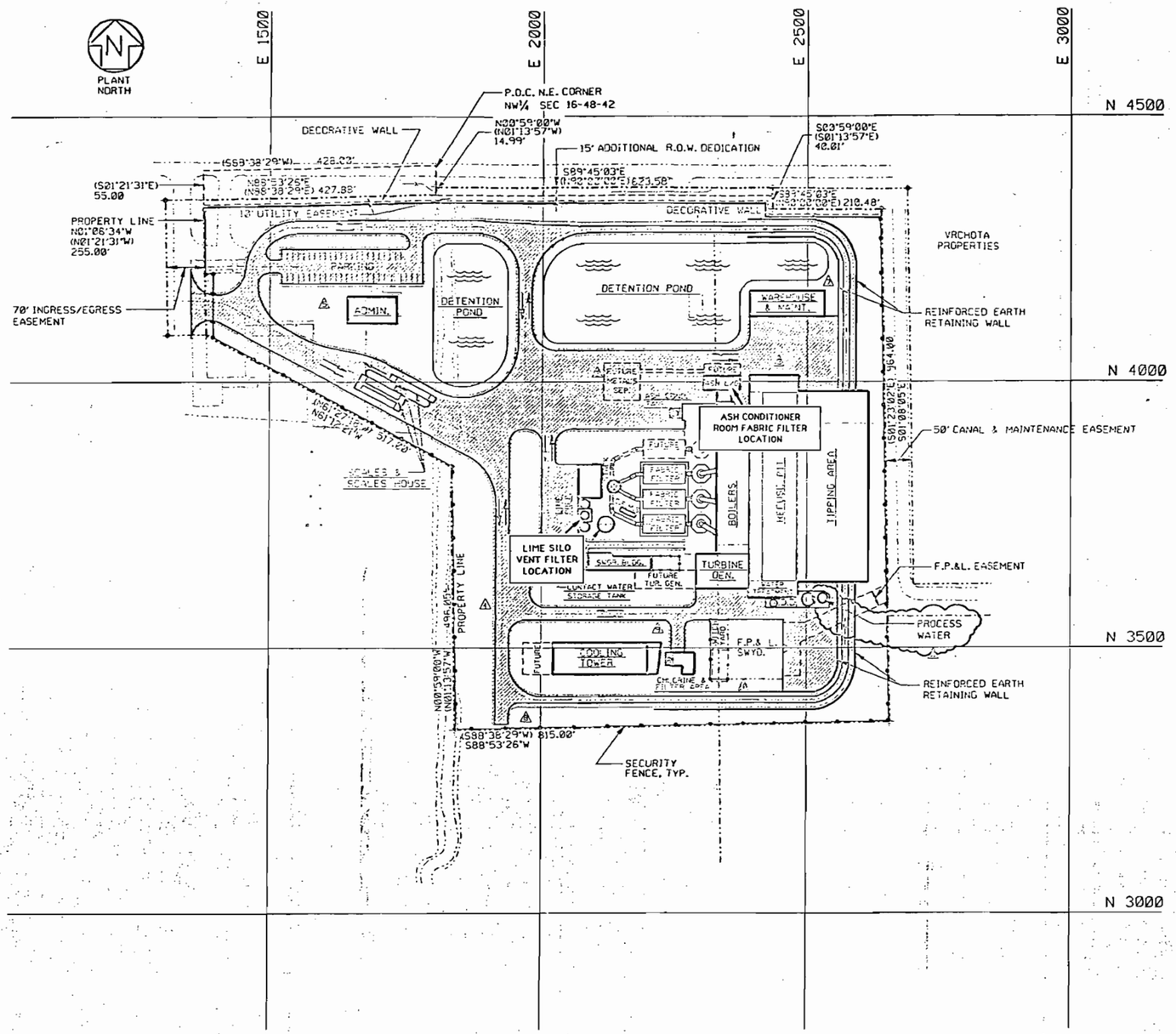
SCALE: 1"=100'

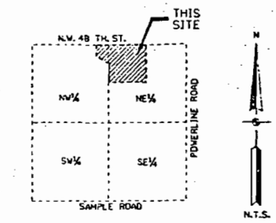
PLOT PLAN

NORTH BROWARD RESOURCE RECOVERY FACILITY

Rust International Corporation Birmingham, Alabama
Contract 21-3457

DRAWING NUMBER 01-32-200 REV. NO. 6





LOCATION MAP

PLOT PLAN LEGEND

- EXISTING FACILITIES
- NEW FACILITIES
- NEW ROADS
- FUTURE FACILITIES

NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE DRAWING 01-32-201.
2. PLAT BEARINGS SHOWN IN PARENTHESES ( ) ON THE PROPERTY BOUNDARY ARE BASED ON WASTE MANAGEMENT INC. PLAT NO. 2-A, SHEET 1 OF 2 AND SHEET 2 OF 2, PLAT BOOK 138 - PAGE 14, BROWARD COUNTY RECORDS; PREPARED BY KEITH & SCHNARS, P.A., SURVEYOR'S CERTIFICATE DATED 2/4/88. OTHER BEARINGS AND ALL COORDINATES SHOWN ARE BASED ON PLANT NORTH WHICH IS ROTATED 00°14'57" CLOCKWISE FROM PLAT BEARINGS.

NO.	REVISIONS	MADE	CKD.	DATE
5	⚠ REV. LOC. OF PROCESS WATER TANK	JRF	MH	5-16-90
5	⚠ REV. FENCE & F.P. & L. SWITCHYARD	J.A.H.	W.L.C.	12-5-89
5	& REV. COOLING TOWER	J.A.H.	W.L.C.	12-5-89
5	⚠ ADD 24' ROAD TO CHLORINE BLDG.	J.A.H.	W.L.C.	12-5-89

NO.	REVISIONS	MADE	CKD.	DATE
5	⚠ ADD 24' ACCESS ROAD	J.A.H.	W.L.C.	12-5-89
4	⚠ REV. DET. POND	J.R.F.	L.E.C.	10-4-89
3	⚠ GENERAL REVISION - ROTATED PLANT	J.R.F.	K.F.J.	9-19-89
2	LOADOUT & PAVEMENT ⚠ REV. ROAD	C.R.U.	K.F.J.	8-17-89
2	PARKING & SIDEWALK ⚠ REV. ASH	C.R.U.	K.F.J.	8-17-89
2	⚠ REV. DET. POND ⚠ REV. ADMIN. BLDG.,	C.R.U.	K.F.J.	8-17-89
1	⚠ GENERAL REVISION	J.R.F.	J. PIGG	8-2-89

DRAWING NO.	REFERENCES
01-32-201	GENERAL NOTES, LEGEND & ABBREV.
01-27-102	MECHANICAL-PLANT LAYOUT

		DATE
DESIGN	J.D.HYDE	4/27/89
DRAWN BY	J.R.FLOWERS	4/28/89
CHECKED BY	G.MILNER	5/1/89
SUPV'SN	J.D.HYDE	5/1/89
SUBMITTED BY	J.E.DAVIS	5/1/89
APP'D BY:		
APP'D BY:		
APP'D BY:		

SCALE: 1"=100'

⑥	Bill Stegall 3-16-90
⑤	BILL STEGALL 12-07-89
④	BILL STEGALL 10-05-89
③	W.A. RUTHERFORD 08-18-89
②	W.A. RUTHERFORD 08-03-89

RELEASED FOR CONSTRUCTION
BY R.E.McCALL DATE 05-01-89

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Danvers, Massachusetts

PLOT PLAN

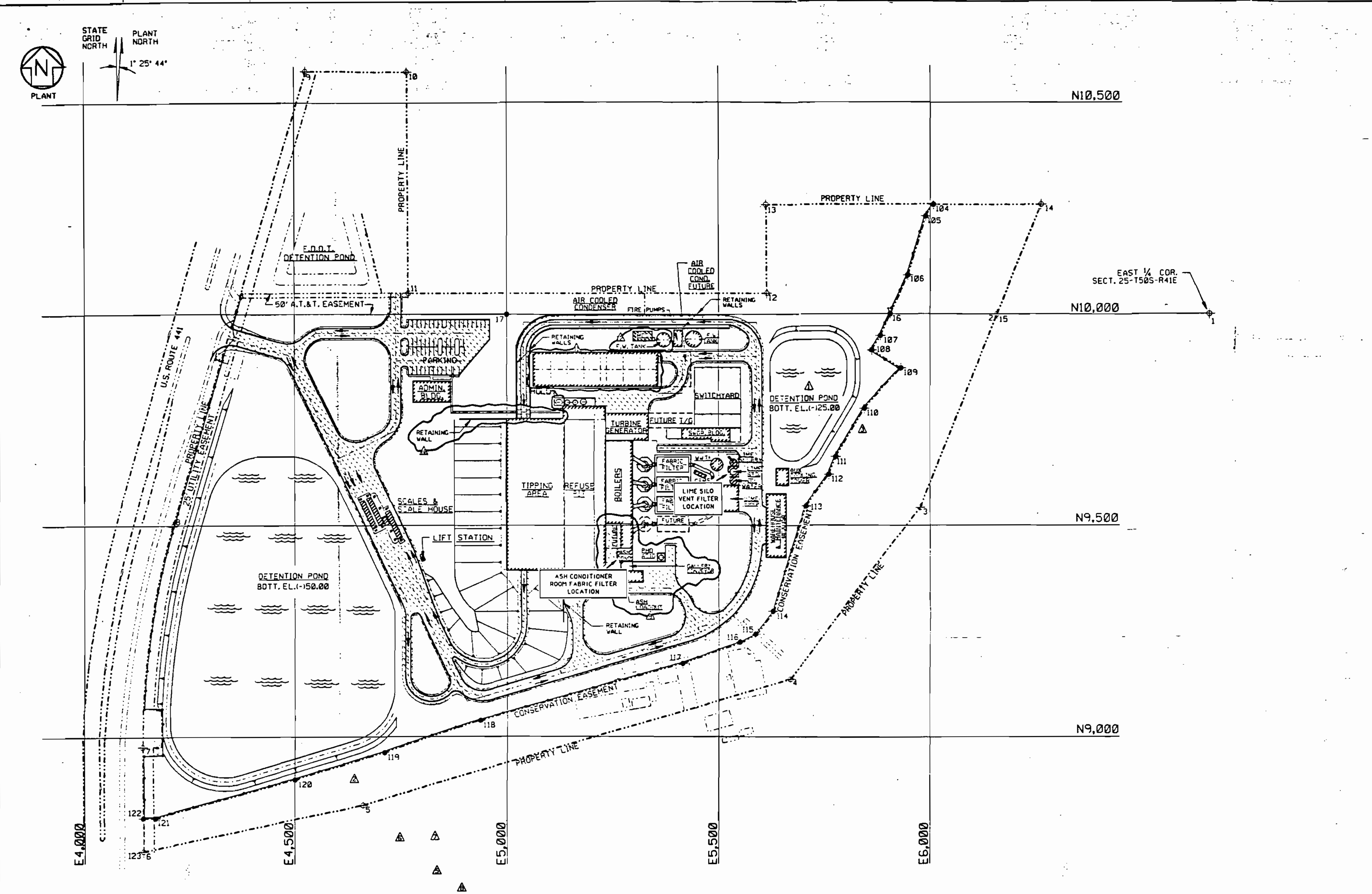
NORTH BROWARD RESOURCE RECOVERY FACILITY

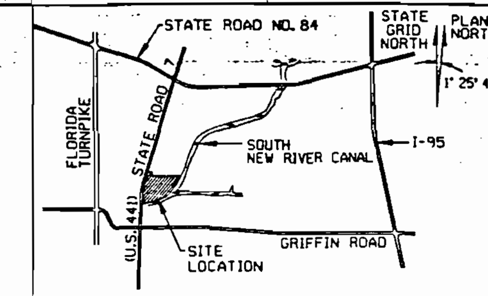
Rust International Corporation Birmingham, Alabama
Contract 21-3457

DRAWING NUMBER 01-32-200

REV. NO. 6

BEST AVAILABLE COPY





VICINITY MAP

LEGEND

- PROPOSED FACILITIES
- EXISTING FACILITIES
- BITUMINOUS PAVEMENT
- NEW SECURITY FENCE
- EXISTING FENCE
- PROPERTY CORNER
- EASEMENT CORNER
- GUARD RAIL

NOTES

1. PLANT NORTH FOR THIS PROJECT IS ORIENTED 1° 25' 44" CLOCKWISE FROM STATE OF FLORIDA GRID NORTH. THE PROPERTY CORNER IDENTIFIED ON THIS DRAWING AS #11 HAS BEEN ESTABLISHED AS PLANT COORDINATE NORTH 10050.00 AND EAST 4769.90 WHICH IS EQUIVALENT TO FLORIDA STATE GRID COORDINATE NORTH 631,874.998 AND EAST 760,635.714 . ALL BEARINGS SHOWN ARE IN RELATION TO PLANT NORTH UNLESS NOTED OTHERWISE.

2. SEE DRAWING 01-32-005 FOR PROPERTY DATA. PROPERTY DATA IS BASED ON THE PLAT TITLED 'ROUTE 441 RESOURCE RECOVERY SITE' PREPARED BY KEITH AND SCHNARS, P.A.; SURVEYORS CERTIFICATE DATED APRIL 3, 1987.

3. ALL ELEVATIONS ARE REFERENCED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.

REV. 7 W.A. RUTHERFORD 7-20-89

RELEASED FOR CONSTRUCTION 12-23-87 DATE C.M.PYRON BY

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Danvers, Massachusetts

NO.	REVISIONS	MADE	CKD.	DATE
8	REV. ASH LOADOUT & PHOS. ACID ADD; RETAIN. WALL, TUNNEL & SIDEWALK DROP; HOLD ON ACC ADD F.W. TANK & REV. MCC			
7	GENERAL REVISION	CRU	KFJ	7-19-89
6	GENERAL REVISION	CRU	KFJ	5-5-89
5	GENERAL REVISION	CRU	JDH	4-14-89
4	GENERAL REVISION	CRU	JDH	3-31-89
3	GEN.REV.(REISSUED FOR APPROV. TO SUPERSEDE ALL PREVIOUS ISSUES	PSB	JDH	1-18-89
2	RELOCATED ENTRANCE ROAD & FENCE	YN	JDH	8-3-88
1	REVISED POND ELEV. REVISED ADMIN. BUILDING & DETENTION POND	PSB	JDH	6-7-88

DRAWING NO.	REFERENCES
01-32-005	PROPERTY DATA

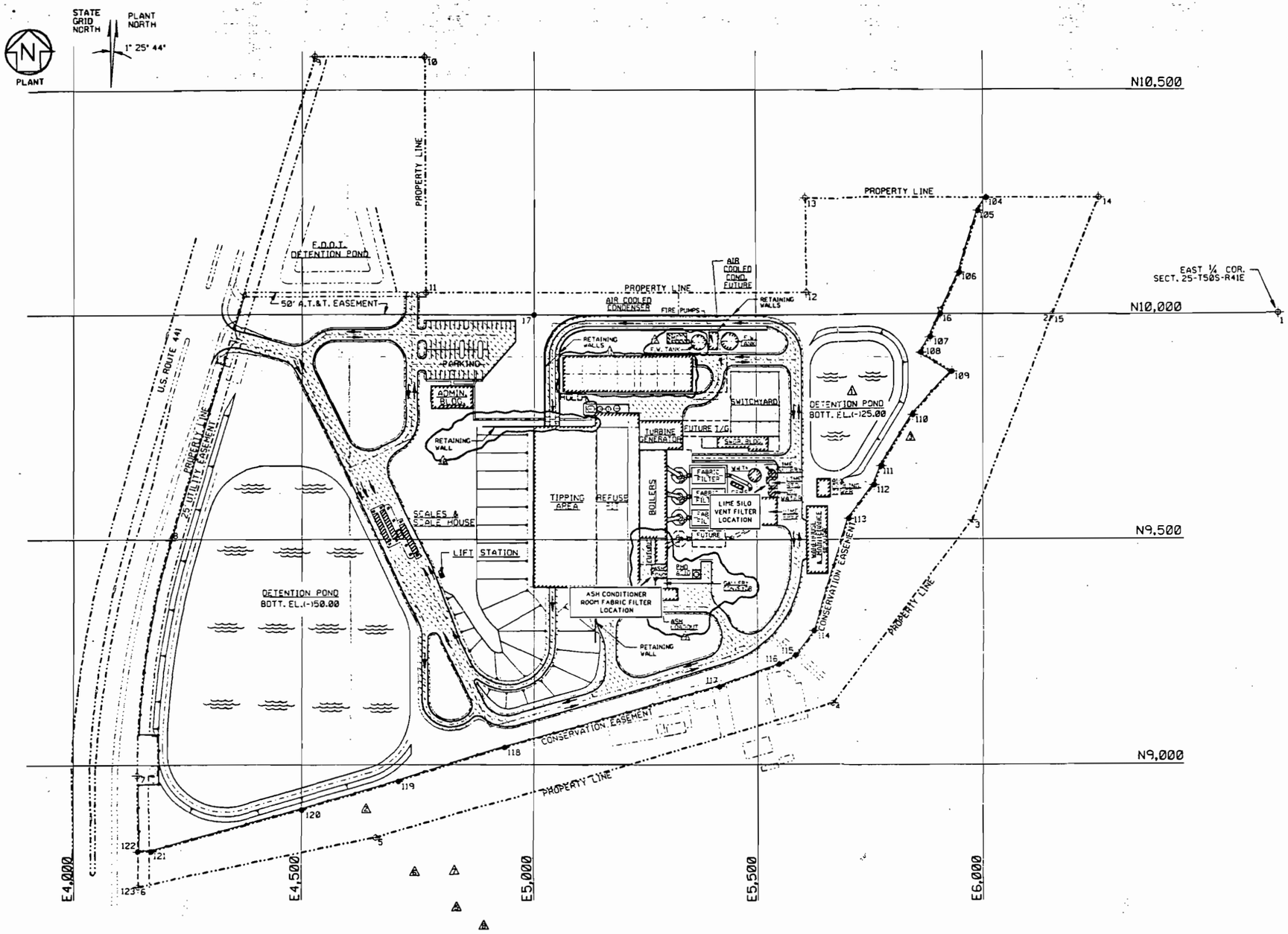
SCALE: 1" = 100'

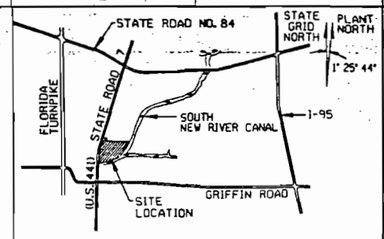
PLOT PLAN

SOUTH BROWARD RESOURCE RECOVERY FACILITY

RUST International Corporation Birmingham, Alabama
Contract 21-29398

DRAWING NUMBER 01-32-001 REV. NO. 8





VICINITY MAP

LEGEND

- PROPOSED FACILITIES
- EXISTING FACILITIES
- BITUMINOUS PAVEMENT
- NEW SECURITY FENCE
- EXISTING FENCE
- PROPERTY CORNER
- EASEMENT CORNER
- GUARD RAIL

NOTES

1. PLANT NORTH FOR THIS PROJECT IS ORIENTED 1° 25' 44" CLOCKWISE FROM STATE OF FLORIDA GRID NORTH. THE PROPERTY CORNER IDENTIFIED ON THIS DRAWING AS #11 HAS BEEN ESTABLISHED AS PLANT COORDINATE NORTH 10850.00 AND EAST 4769.90 WHICH IS EQUIVALENT TO FLORIDA STATE GRID COORDINATE NORTH 631,874.998 AND EAST 750,635.714 . ALL BEARINGS SHOWN ARE IN RELATION TO PLANT NORTH UNLESS NOTED OTHERWISE.
2. SEE DRAWING 01-32-005 FOR PROPERTY DATA. PROPERTY DATA IS BASED ON THE PLAT TITLED "ROUTE 441 RESOURCE RECOVERY SITE" PREPARED BY KEITH AND SCHNARS, P.A.; SURVEYORS CERTIFICATE DATED APRIL 3, 1987.
3. ALL ELEVATIONS ARE REFERENCED ON NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929.

REV. 7 W.A. RUTHERFORD 7-20-89

RELEASED FOR CONSTRUCTION
12-23 -87 DATE C.M.PYRON BY

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.
Danvers, Massachusetts

Rust International Corporation Birmingham, Alabama
Contract 21-29398

NO.	REVISIONS	MADE	CKD.	DATE
8	HOLD ON ACC ⚠ ADD F.W. TANK & REV. MCC			
	RETAIN. WALL, TUNNEL & SIDEWALK ⚠ DROP			
8	⚠ REV. ASH LOADOUT & PHDS. ACID ⚠ ADD			
7	⚠ GENERAL REVISION	CRU	KFJ	7-19-89
6	⚠ GENERAL REVISION	CRU	KFJ	5-5-89
5	⚠ GENERAL REVISION	CRU	JDH	4-14-89
4	⚠ GENERAL REVISION	CRU	JDH	3-31-89
3	⚠ GEN.REV.;REISSUED FOR APPROV. TO	PSB	JDH	1-18-89
	SUPERSEDE ALL PREVIOUS ISSUES	PSB	JDH	1-18-89
2	⚠ RELOCATED ENTRANCE ROAD & FENCE	TN	JDH	8-3-88
1	⚠ REVISED POND ELEV. ⚠ REVISED	PSB	JDH	5-7-88
	ADMIN. BUILDING & DETENTION POND	PSB	JDH	6-7-88

GRAPHIC SCALE 0 50' 100'

01-32-005 PROPERTY DATA

	SCALE: 1" = 100'	DATE
DESIGN	JOHN DIXON	4/15/87
DRAWN BY	V.F.HINES	2/5/87
CHECKED BY	V.F.HINES	4/15/87
SUPV. BY	JOHN DIXON	4/23/87
SUBMITTED BY	J.E.DAVIS	4/23/87
APPD. BY		
APPD. BY		
APPD. BY		

PLOT PLAN

SOUTH BROWARD RESOURCE RECOVERY FACILITY

DRAWING NUMBER 01-32-001 REV. NO. 8

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT North Broward Resource Recovery Inc. (Ash Conditioner)

PROJECT LOG NO. AC 06-186998 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 (Rec'd 15985 $200.00) 30-DAY (HW 60-DAY) DATE 10/26/90

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER _____ 9/27/90 (Cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK _____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT North Broward Resource Recovery Inc. (Lime Silo Vent)

PROJECT LOG NO. AC 06-186997 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec # 15985

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/27/90 (cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sitig, M. AMOUNT OF FEE REQ'D $ _____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT South Broward Resource Recovery Inc. (Ash Conditioner)

PROJECT LOG NO. AC 06-187001 COUNTY Broward

DATE APPLICATION RECEIVED 9/27/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec'd 15986

AMOUNT OF FEE PAID $200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/27/90 (Cover letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $_____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____

SOUTHEAST DISTRICT PERMIT PROCESSING WORKSHEET

LOGGING

NAME OF PROJECT South Broward Resource Recovery Fac. (Lime Silo)

PROJECT LOG NO AC 06-187000 COUNTY Broward

DATE APPLICATION RECEIVED 9/21/90 30-DAY (HW 60-DAY) DATE 10/26/90

Rec# 159886

AMOUNT OF FEE PAID $ 200.00 COPIES OF PLANS _____

COPIES OF APPLICATION 4 COPIES OF SPECIFICATIONS _____

COPIES TO: CORPS __; LOCAL PROGRAM ✓; TALLAHASSEE __; DNR __; OTHER __

9/20/90 (Cover Letter only)

PERMIT REVIEW

PERMIT ASSIGNED TO Sittig, M. AMOUNT OF FEE REQ'D $ _____

DISCHARGE TO OR LOCATED IN AQUATIC PRESERVE: Yes __ No __ N/A ___

PERMIT STATUS AND CHRONOLOGY

DATE	REVIEWER'S INITIALS	COMMENTS

(continue on reverse side)

FIELD INSPECTION BY: _____ DATE _____; N/A _____

WATER MANAGEMENT COMMENTS (DATE) _____; N/A _____

LOCAL PROGRAM APPROVAL (DATE) _____; N/A _____

GPSI, APIS, OR PWS UPDATE DRAFTED: Yes _____ ; N/A _____

PUBLIC NOTICE LETTER ISSUED/PUBLISHED (DATES) _____ ; N/A _____

APPLICATION COMPLETION DATE _____ > DEFAULT DATE _____

>> D.A.S. 90+ DAYS INACTIVITY AUTHORIZATION: _____OK ____DENY <<

COMMENTS: _____

PERMIT, EXEMPTION, DENIAL DRAFTED BY: _____ DATE: _____

INTENT: PROGRAM HEAD _____ PROGRAM ADM. _____

FINAL DRAFT REVIEWED BY: _____ DATE: _____

FINAL DRAFT APPROVED BY: _____ DATE: _____

****

FINAL PROCESSING

DISTRIBUTION BY: _____ DATE: _____

PATS UPDATED BY: _____ DATE: _____

GPSI, APIS OR PWS UPDATED BY: _____ DATE: _____

WORD PROCESSOR: _____