State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

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

TO: Victoria J. Tschinkel

FROM: Clair Fancy

DATE: October 22, 1986

SUBJ: Approval of Air Construction Permits

Attached for your approval and signature are six air construction permits to GNB Incorporated for their lead-acid battery manufacturing plant in Orlando, Orange County, Florida.

Day 90, after which the permits would be issued by default, is October 30, 1986.

The Bureau recommends your approval and signature.

CF/pa

Attachment

P 408 532 066

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. T. E. Hattershcide	
Street and No.	
P.O., State and ZIP Code	
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 10/29/86	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Mr. T. E. Hatterschide
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
P 408 532 066

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
NOV 3 1986

ST PAUL MN 55101 NOV 3 1986 9720 BOX SECTION

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

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. T. E. Hatterschide
Director of Manufacturing and Engineering
GNB Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

October 28, 1986

Enclosed are Permit Numbers AC 48-111462, AC 48-111463, AC 48-111464, AC 48-111465, AC 48-111466 and AC 48-111468, to GNB Incorporated for seven air pollution sources at the GNB Incorporated lead-acid battery plant in Orlando, Orange County, Florida. 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 32301; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

John Bottorf, P.E.
Bruce Miller
Tom Sawicki

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on October 29, 1986 to the listed persons.

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 G. Adams — Clerk

Oct. 29, 1986 — Date

Final Determination

GNB, Incorporated
Orlando, Florida
Orange County

GNB ID		Permit Number
E1	Pot Furnace Exhaust Hood	AC 48-111462
E2	Electric Pot Furnace	AC 48-111463
E3	Electric Pot Furnace	AC 48-111464
E4	Plate Pasting Operation	AC 48-111465
B1	Pasting, Plate Drying, and Parting Operation	AC 48-111466
B7	Hoffman Vacuum System	AC 48-111468

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

October 22, 1986

Final Determination
GNB, Incorporated

The Technical Evaluation and Preliminary Determination for the existing lead-acid battery manufacturing plant was distributed on September 5, 1986. Copies of the evaluation were available for public inspection at the department's offices in Orlando and Tallahassee. The Notice of the Proposed Agency Action on the permit applications was published in The Orlando Sentinel on September 21, 1986.

No comments on the department's intent to issue the permits were submitted. The final action of the department will be to issue the construction permits as proposed in the Technical Evaluation and Preliminary Determination.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111462
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Pot Furnace Exhaust Hood (E1)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 Pot Furnace Exhaust Hood (GNB ID E1) installation which serves 5 gas-fired (895 CFH) lead pots (1.7 TPH) that feed 9 casting machines at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The draft for the hood is created by a Tabd Model 1-64266 fan that exhausts 10,220 dscfm through a 33 foot high, 2.5 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111462
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS :

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the pot furnace exhaust hood (E1) shall not operate more than 16 hrs/day, 6 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed 1.71 TPH without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 1.37 lb/hr (3.43 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.1190 lb/hr (0.298 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111462
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 5,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this 27 day of October 1986.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111463
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Electric Pot Furnace (E2)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 one electric pot furnace (0.61 TPH) with an exhaust hood (GNB ID E2) installation which serves three grid casting machines at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The draft for the hood is created by a McMaster 2097R32 fan that exhausts 910 dscfm through a 33 foot high, 1 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the pot furnace exhaust hood (E2) shall not operate more than 16 hrs/day, 6 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed 0.61 TPH without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 0.49 lb/hr (1.23 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.0096 lb/hr (0.024 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111463
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 5,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this 27 day of October 1986.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111464
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Electric Pot Hood
(E3)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 one electric pot furnace (0.61 TPH) with an exhaust hood (GNB ID E3) installation which serves three grid casting machines at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The draft for the hood is created by a McMaster 2097R32 fan that exhausts 910 dscfm through a 33 foot high, 1 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111464
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the pot furnace exhaust hood (E3) shall not operate more than 16 hrs/day, 6 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed 0.61 TPH without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 0.49 lb/hr (1.23 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.0096 lb/hr (0.024 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111464
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 5,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this 27 day of October 1986.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel

Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111465
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Plate Pasting Operation (E4)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 tray exhaust system (GNB ID E4) installation which serves the plate pasting operation (3.1 TPH) at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The 16,600 dscfm draft from the system is discharged through a 40 foot high, 3 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111465
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the tray exhaust system (E4) shall not operate more than 15 hrs/day, 5 days/wk, and 52 wks/year.

2. Cast lead grids and lead oxide paste feed to these operations shall not exceed 1.53 TPH each (3.1 TPH total feed) without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 6.75 lbs/hr (13.5 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.1238 lbs/hr (0.248 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111465
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 4,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this 27 day of October 1986.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111466
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Pasting, Plate Drying, and Parting Operations (B1)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 installation of the 8 inch diameter ducts needed to discharge the emissions from the positive auto MAC 24 paste oven and parting stand (GNB ID E5) and the negative auto MAC 24 paste oven and parting stand (GNB ID E6) to the Carborundum Model 288 CT-2 baghouse that controls the emissions from the pasting operations area (GNB ID B1). The lead feed rate to each oven is 1.53 TPH (3.1 TPH total). The feed to the pasting operation is 4 TPH. The discharge from the baghouse, after the modification, will be 15,190 dscfm through a 52 foot high, 2.5 foot x 2.5 foot stack. The plant is located at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the Carborundum baghouses (B1) shall not operate more than 16 hrs/day, 5 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed the following without prior approval of the district office.

Source	Old GNB ID	TPH
Pasting Operation	B1	4
Paste Oven Positive and Parting Stand	E5	1.53
Paste Oven Negative and Parting Stand	E6	1.53

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111466
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

4. Particulate matter emissions from the pasting operation and two auto MAC 24 ovens and parting stands shall not exceed 3.4 lbs/hr and 6.7 TPY.

5. Inorganic lead emissions from these operations shall not exceed 0.2046 lbs/hr (0.41 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111466
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 4,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

17. The permit (AC 48-111466) replaces permit No. AO 48-112909.

Issued this 27 day of October
1980.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111468
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Hoffman Vacuum System (B7)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 Hoffman Model 4208 A central vacuum system (GNB ID B7) installation that is used for periodic cleanup of the plant and process equipment at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. When operating, the vacumatic separator, which has a 2:1 air to cloth ratio, discharges 650 dscfm through a 28 foot high, 0.5 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111468
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. This unit shall not operate more than 15 hrs/day, 5 days/wk, and 52 wks/year.

2. Scrap from plant cleanup shall be reclaimed in a secondary lead smelter which has a valid permit issued by an air pollution control agency.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 3.4 lb/hr (6.8 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.0096 lb/hr (0.0192 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The unit shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111468
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 4,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this 27 day of October 1986.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Victoria F. Tschinkel, Secretary

_____pages attached.

Check Sheet

Company Name: GNB INCORPORATED
Permit Number: AC48-111462 through AC48-111468
PSD Number:
Permit Engineer:

Application:

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

Cross References:

- [ ]
- [ ]
- [ ]

Intent:

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

Correspondence with:

- [ ] EPA
- [ ] Park Services
- [ ] Other

- [x] Proof of Publication
  - [ ] Petitions - (Related to extensions, hearings, etc.)
  - [ ] Waiver of Department Action
  - [ ] Other

Final Determination:

- [x] Final Determination 62, 63, 64, 65, 66, 68
- [x] Signed Permit
- [ ] BACT Determination
  - [ ] Other

Post Permit Correspondence:

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

In the folder labeled as follows there are documents, listed below, which were not reproduced in this electronic file. That folder can be found in the supplementary documents file drawer. Folders in that drawer are arranged alphabetically, then by permit number.

Folder Name: GNB Incorporated

Permit(s) Numbered:

AC	48	111462	AC	48	111465
AC	48	111463	AC	48	111466
AC	48	111464	AC	48	111467
			AC	48	111468

Documents: Period during which document was received	Detailed Description
APPLICATION 25 NOV 1985	1. 22"x34" BLUEPRINT: HVAC & BAGHOUSE MASTER (DRAWING NUMBER: D-502B)

P 408 531 186

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Donald Groff	
Street and No.	
P.O., State and ZIP Code	
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 12/12/86	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

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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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Mr. Donald W. Groff
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 408 531 186

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery
DEC 15 1986

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

ST PAUL MN 55101
DEC
15
1986
9720 POST OFFICE

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

December 12, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Donald W. Groff
Manager, Facilities Engineering
GNB Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

Dear Mr. Groff:

Re: GNB's Lead-Acid Battery Manufacturing Facility in Orlando

The department acknowledges receipt of your November 21, 1986, letter requesting permission to increase the hours of operation of GNB's Orlando, Florida, facility. The department is unable to process this request because the hours of operation of this facility are restricted by the federal regulations promulgated in the November 1, 1985, Federal Register. The SIP (federal regulation) must be modified prior to approving any changes to the restrictions (hours of operation and emissions). GNB, Inc. should address any request for a modification to:

Mr. Bruce Miller
Air Programs Branch
Air, Pesticides, and Toxics Mgmt. Division
U.S. EPA - Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

The requirements for the request are listed in 40 CFR 51.

Sincerely,

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

CHF/WH/s

cc: T. Sawicki
B. Miller
R. Caldwell

GNB Incorporated Automotive Battery Division

Mailing Address:
P.O. Box 64100
St. Paul, MN 55164-0100 U.S.A.

1110 Highway 110
Mendota Heights, MN 55118
Telephone (612)681-5000

November 21, 1986

Mr. C. H. Fancy, Deputy Chief
Florida Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

This is a request to modify several operating permits issued to GNB's facility at 11331 Satellite Boulevard, Orlando.

GNB has recently enjoyed increased battery sales, which requires extended plant operating hours for manufacturing. As currently written, several permits do not allow for third shift, overtime, and/or weekend operations. These hours must be utilized at certain times of the year to produce the needed products with the existing equipment.

In our manufacturing scheme, plant management has the option of running weekday shift overtime, working on Saturday, or hiring a third shift. The selection depends on the expected duration of peak production, the attitude of the employees, local labor availability and other factors. Previous permits only listed annual hours of operation, while new permits also list hours/day, days/ week, and weeks/year. I am proposing annual hours that are not a product of multiplying hours, days and weeks, so that local management can randomly select daily shift overtime rather than an overtime Saturday. Either choice could result in equal annual operating hours while possibly not fitting a particular hour/day/ week schedule.

Attached Schedule 1 is a spreadsheet showing each current permit's operating schedule and proposed schedule. It is important to note that the hourly emission rates and process rates do not change.

In reviewing these permits, I have discovered several unrelated minor errors which should be corrected when the opportunity presents itself.

1. Permit #AC 48-111466 (page 7, paragraph 17) states that permit #AO48-112909 is replaced.

   I believe this is incorrect, as the old permit covered three sources (B1, B2 and B5), while the new permit covers only one source (B1). The old permit should stay in effect or be re-issued to permit operating sources B2 and B5.

2. Permit #A048-112909 (page 1) - point source "(3) #3, System No. 4, Maintenance . . ." should read, "(3) #B5, System No. 4, Maintenance . . ." to be consistent with the remainder of the permit. Also on page 1, the project title header should change from ". . .; #2, System No. 3 . . ." to " ; #B2, System No. 3 . . ." I believe these to be typing errors or omissions.

3. Permit #A048-105874 (page 1) point source 2 should indicate a #4580 Ruemelin baghouse. This was correctly stated on the renewal application, but transposed on the permit issued. Page 4, paragraph 6, item #1, the GNB ID number is B4 and not E4 as printed.

4. In general, the stack testing frequency and EPA methods numbers are not consistent between permits. Is this an error, or are different methods needed?

We are aware that operating permits are modified by the district office and are copying Mr. Tom Sawicki for this purpose.

Should there be any questions or additional information required, please contact me.

Very truly yours,

GNB Incorporated

Donald W. Groff
Manager, Facilities Engineering

cc: R.T. Caldwell/Seabury-Bottorf
T.E. Hatterschide
C. Shimeall

/fhs
fc1g38

SCHEDULE 1

ORLANDO PERMIT SUMMARY

Permit #	GNB Source I.D.	Permitted #/Hr Pb	Permitted Hrs/Yr (Hr/Day/Wk)	Permitted Tons/Year Pb	Proposed Hrs/Yr (Hrs/D/Wk)	Proposed Tons/Yr
AC48-111466	B1	.2046	4000	.41	5000 (20/6/52)	.51
AO48-112909	B2	.2188	4000	.44	5000 (20/6/52)	.547
AO48-112909	B5	.4902	4000	.98	5000 (20/6/52)	1.226
AO48-105874	B3	.2998	4000	.60	5000 (20/6/52)	.750
AO48-105874	B4	.1808	5000	.45	7500 (24/6/52)	.678
AO48-105874	B6	.0142	1000	.007	No Change	.007
AC48-111468	B7	.0096	4000 (15/5/52)	.0192	5000 (20/6/52)	.024
AC48-112906	B8	N/A	8760 (24/7/52)	N/A	No Change	N/A
AC48-111462	E1	.1190	5000 (16/6/52)	.298	7500 (24/6/52)	.446
AC48-111463	E2	.0096	5000 (16/6/52)	.024	7500 (24/6/52)	.036
AC48-111464	E3	.0096	5000 (16/6/52)	.024	7500 (24/6/52)	.036
AC48-111465	E4	.1238	4000 (15/5/52)	.248	5000 (20/6/52)	.31
Totals		1.68#/Hr		3.50 T/Y		4.57 T/Y

fc1g38

DER CERTIFIED MAIL NO. 632-688-476

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION,	:	IN THE OFFICE OF THE CENTRAL FLORIDA DISTRICT
Complainant,	:	
vs.	:	OGC Case No. 86-1221
GNB INCORPORATED,	:	
Respondent.	:	

CONSENT ORDER

This Consent Order is made and entered into between the State of Florida Department of Environmental Regulation ("Department") and GNB Incorporated ("Respondent"). The Department finds and the Respondent admits the following:

1. The Department of Environmental Regulation is the administrative agency of the State of Florida charged with the responsibility for the protection of Florida's air and water resources and the administration of Chapter 403, Florida Statutes, and the regulations promulgated thereunder, Florida Administrative Code Chapter 17.

2. Respondent owns and operates a Battery Manufacturing Facility which includes two Plate Paste Drying Ovens (E5 and E6). This facility is located at 11331 Satellite Boulevard in Orlando, Orange County, Florida, Latitude 28°23'58" North, Longitude 81°24'02" West.

3. On the dates of February 19 and 20, 1986, the Respondent's two Plate Paste Drying Ovens were tested in accordance with E.P.A. Method 12. The applicable lead emission limitations were exceeded which resulted in a failed test. This constitutes a violation of 40 C.F.R. 52.535, Federal Lead Implementation Plan dated December 2, 1985.

4. A telephone conference was held between W. E. Darling of the Department and D. W. Groff of GNB Inc. on August 20, 1986, to discuss the above violation.

THEREFORE, having reached a resolution of the matter, pursuant to Florida Administrative Code Rule 17-103.110(3), the Department and the Respondent mutually agree and it is

ORDERED:

5. Respondent shall pay a settlement fee to the Department of Environmental Regulation with either a money order, cashier's check or certified check in the amount of $2,000.00. Payment shall be made within thirty (30) days of the effective date of this Consent Order. The check or money order shall be made payable to the "Department of Environmental Regulation" and mailed to the Department of Environmental Regulation, Central Florida District, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803.

6. Respondent shall comply with the conditions of any approval, clearance or rules (Florida Administrative Code Chapters 17-2, 17-4 and Chapter 403, Florida Statutes) adopted by the Department for air pollution sources; comply with the compliance schedule, attached as Exhibit "A"; and implement further measures toward reducing the lead emissions from each of the two Paste Drying Ovens (emission points E5 and E6 to comply with the emission limits of 40 C.F.R. 52.535) and to retest these sources in accordance with E.P.A. Method 12 within thirty (30) days of completion of said measures. A report of the measures taken and test results are to be submitted to the Department within sixty (60) days of receipt of a valid operating permit.

7. Respondent shall, as applicable, allow authorized representatives of the Department access to the property at reasonable times for purposes of determining compliance with this Order and the Rules of the Department.

8. The Department hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit the future violation of applicable statutes or the rules promulgated thereunder.

9. The Department, for and in consideration of the complete and timely performance by Respondent of the obligations agreed to in this Consent Order, hereby waives its right to seek judicial imposition of damages, or civil or criminal penalties for the violation outlined in this Consent Order.

10. Respondent waives its right to a hearing or judicial review of the terms of this Consent Order. Those persons whose substantial

interest are affected by the Consent Order and who are not parties to this Consent Order have the right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on the Consent Order. The petition must conform to the requirements of Florida Administrative Code Chapters 17-103 and 28-5, and must be filed (received) with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this notice. Failure to file a petition within 14 days, constitutes a waiver of any rights such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

If a Final Order is entered on a substantially affected party's petition, substantially affected party has the right to seek judicial review of the Final Order 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 the final order is filed with the clerk of the Department.

This Consent Order is final agency action of the Department pursuant to Section 120.69, Florida Statutes, and Florida Administrative Code Rule 17-103.110(3), and it is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the preceding paragraphs. Upon the timely filing of a petition this Consent Order will not be effective until further order of the Department.

11. Entry of this Consent Order does not relieve Respondent of the need to comply with applicable federal, state or local laws, regulations or ordinances. The entry of this Consent Order does not abrogate the rights of substantially affected persons who are not parties to this Order, pursuant to Chapter 120, Florida Statutes.

12. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction pursuant to

Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

13. Respondent is fully aware a violation of the terms of this Consent Order may subject Respondent to judicial imposition of damages, civil penalties of up to $10,000 per offense and criminal penalties.

FOR RESPONDENT:

Oct 28, 1986
Date

Donald W. Groff
DONALD W. GROFF
Manager, Facilities Engineering
GNB Incorporated
Post Office Box 64140
St. Paul, Minnesota 55164

DONE AND ORDERED this _____ day of NOV 3 1986, 1986, at Orlando, Orange County, Florida.

A. ALEXANDER, P.E.
District Manager
Central Florida District
State of Florida Department
of Environmental Regulation
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to S120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

CLERK

11/3/86
Date

EXHIBIT "A"

COMPLIANCE SCHEDULE

1. Within thirty days of entry into this Consent Order, GNB shall submit evidence of an approved lead model and its evaluation from BAQM.

2. Within one hundred twenty days after the promulgation of an amended lead SIP or one year prior to, GNB shall test each point to demonstrate compliance with all applicable standards. All testing shall consist of an EPA Method #12 with one concurrent sixty minute EPA Method #9. The sources shall be operating under normal conditions at approximately (within ten per cent of) the maximum permitted rates. The EPA and the State shall be supplied with copies of all test reports within forty five days of completion of the last test. Submission of the test reports, within the specified time frame, shall satisfy this requirement regardless whether testing is done one year prior to the promulgation of a lead SIP or within one hundred twenty days thereafter. Both agencies shall be given fifteen days written notice, or as soon as practical, prior to any test being conducted.

GNB Incorporated Automotive Battery Division

Mailing Address:
P.O. Box 64100
St. Paul, MN 55164-0100 U.S.A.

1110 Highway 110
Mendota Heights, MN 55118
Telephone (612)681-5000

September 26, 1986

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

Attention: Mr. Bill Thomas

Dear Mr. Thomas:

Attached please find the proof of publication for GNB's air pollution source permits as requested by your agency's September 5 letter.

Should there be any question, please contact me.

Very truly yours,

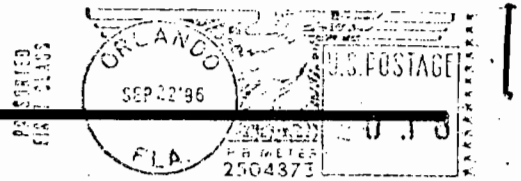
GNB Incorporated

Donald W. Groff
Manager, Facilities Engineering

/fhs
fc1g12

The Orlando Sentinel

633 North Orange Avenue
Orlando, Florida 32801-1349



DER
SEP 24 1986
BAQM

State of FL
Dept. of Enviromental Regulations
Bureau of Air Quality Management
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Attn: Mr. Thomas

GNB Incorporated

P.O. Box 64100
St. Paul, MN 55164-0100 U.S.A.

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

Attention: Mr. Bill Thomas

The Orlando Sentinel

Published Daily
Orlando, Orange County, Florida

ADVERTISING CHARGE $ 54.68 Paid

State of Florida (SS.
COUNTY OF ORANGE

Before the undersigned authority personally appeared _____

Nancy A. Puglia, **who on oath says that** she is the Legal Advertising Representative of the Orlando Sentinel, a Daily newspaper **published at Orlando, in Orange County, Florida; that the attached copy of advertisement, being a** Notice of Intent **in the matter of** Permits to GNB Incorporated for Seven Air Pollution Sources **in the** _____ **Court, was published in said newspaper in the issues of** September 21, 1986

Affiant further says that the said Orlando Sentinel is a newspaper published at Orlando, in said Orange County, Florida, and that the said newspaper has heretofore been continuously published in said Orange County, Florida, each Week Day and has been entered as second-class mail matter at the post office in Orlando, in said Orange 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 the said newspaper.

Nancy A Puglia

Sworn to and subscribed before me this 22nd day of September A.D., 1986

KATHERINE DEER NOTARY PUBLIC STATE OF FLORIDA Seal

Notary Public

Notary Public, State of Florida at Large
My Commission Expires March 4, 1989
Bonded Thru Brown & Brown, Inc.

FORM NO. AD-262

State of Florida
Department of
Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue permits to GNB Incorporated for seven air pollution sources at the GNB Incorporated lead-acid battery manufacturing plant located at 11331 Satellite Blvd., Orlando, Orange County, Florida. The permits will incorporate the lead emission standards promulgated by EPA on November 1, 1985. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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

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

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

LS-129(10) Sept.21,1986

P 408 532 049

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. T. E. Hatterschide	
Street and No.	
P.O., State and ZIP Code	
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 9/5/86	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

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1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Mr. T. E. Hatterschide
GNB Incorporated
P. O. Box 64100
St. Pauld, Minnesota 55164-0100

4. Type of Service:	Article Number
☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail	P 408 532 049

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery SEP 8 1986

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

ST PAUL, MN 55101 SEP 8 1986 9720 POX SECTION

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

September 5, 1986

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. T. E. Hatterschide
Director of Manufacturing and Engineering
GNB Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

Dear Mr. Hatterschide:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and draft permits for GNB Incorporated's lead-acid battery manufacturing facility in Orlando, Orange County, Florida.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

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

CHF/pa

Attachments

cc: John Bottorf, P.E.
Bruce Miller
Tom Sawicki

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue permits to GNB Incorporated for seven air pollution sources at the GNB Incorporated lead-acid battery manufacturing plant located at 11331 Satellite Blvd., Orlando, Orange County, Florida. The permits will incorporate the lead emission standards promulgated by EPA on November 1, 1985. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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

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

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

Dept. of Environmental Regulation
St. Johns River District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

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

28-5.15 Requests for Formal and Informal Proceedings

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

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

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

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

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

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

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

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

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

of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to an administrative determination (hearing) under Section 120.57, F.S.

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(4) Notice to substantially affected persons concerning applications for Department permits is an essential and integral part of the state environmental licensing process. Therefore, no application for a permit for which publication of notice is required shall be granted until and unless proof of publication of Notice is furnished to the appropriate Department permitting office.

(5)(a) Any applicant or person benefiting from the Department's action may elect to publish notice of proposed agency action in the manner provided by subsection (2) or (3). Any person who elects to publish notice of proposed agency action, upon presentation of proof of publication to the Department, prior to final agency action, shall be entitled to the same benefits under this rule as a person who is required to publish notice of proposed agency action. Since persons whose substantial interests are affected by a Department decision on a permit application may petition for an administrative proceeding within fourteen (14) days after receipt of notice and since, unless notice is given or published as prescribed in this rule, receipt of notice can occur at any time, the applicant or persons benefiting from the Department's action cannot justifiably rely on the finality of the Department's decision without the notice having been duly given or published.

(b) The notices required by this rule may be combined with other notices required by the Department pursuant to Chapter 403, 376, or 253, F.S., or Chapter 17, FAC.

(c) The provisions of this section shall also apply to the permitting of hazardous waste facilities, but only to the extent it is consistent with Chapter 17-30, Part IV, FAC. Whenever Chapter 17-30, Part IV, FAC, provides for a different time or notice procedure than that set forth in this section the time and notice provisions of Chapter 17-30 shall govern.

(6) Failure to publish any notice of application, notice of proposed agency action, or notice of agency action required by the Department shall be an independent basis for the denial of a permit.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S. History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.155 Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action may file a petition for administrative proceeding. A petition shall be in the form required by this Chapter and Chapter 28-5, FAC, and shall be filed (received) in the Office of General Counsel of the Department within fourteen (14) days of receipt of notice of proposed agency action or within fourteen (14) days of receipt of notice of

agency action whenever there is no public notice of proposed agency action. In addition to the requirements of Rule 28-5.201, FAC, the Petition must specify the county in which the project is or will be located.

(b) Failure to file a petition within fourteen (14) days of receipt of notice of agency action or fourteen (14) days of receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(c) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 17-103.150, FAC, a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within fourteen (14) days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 17-103.150, FAC. Failure of the person to make inquiry with the Department within fourteen (14) days after obtaining such knowledge may estop the person from obtaining an administrative proceeding on the agency action.

(2)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(3) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal should be limited to:

(a) the application, and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(4) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by

the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.
Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S.
History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.160 Uniformity in Approval and Denial of Applications for Department Permits and Certifications. To the extent possible and consistent with the public interest, the Department approves and denies applications for permits and certifications on a uniform and consistent basis. Final Department actions on applications for permits and certifications shall be consistent with prior Department actions, unless deviation therefrom is explained by the Department in writing or the hearing officer who submits a recommended order to the Department for final agency action in accordance with Section 120.57, Florida Statutes.
Specific Authority: 120.53(1), F.S. Law Implemented: 120.53(1), 120.68(12), F.S. History: New 2-6-78, Transferred from 17-1.63, 6-1-84.

17-103.170 Designation, Preparation and Transmittal of Record for Administrative Appeals.

When any Department action or order is the subject of an administrative appeal under Chapter 17-103, Part II, FAC, the following requirements shall apply:

(1) Designation of Record. Within fifteen (15) days of rendition of the Department's final order, the appellant shall designate to the Department, in writing, with copies to other parties, those documents or things under the control of or in the possession of the Department which the appellant desires to have included in the record, and which were received or considered in the Department proceeding below. If a proceeding was reported by mechanical recording devices, the appellant shall designate those portions of the proceeding for which it requires written transcription or tapes for transcription. Any other party may designate other portions of the record in the manner provided herein. Such cross-designation shall be filed with the Department, with copies provided other parties, within seven (7) days after receipt of the designation by the appellant.

(2) Original Record. The Department shall thereupon include in the record all of the designated portions of the original papers and exhibits in the proceedings or matter from which administrative appeal is taken, together with a copy of any such parts of the proceedings as were stenographically reported or transcribed from tapes, and as have been designated by the parties and certified by a notary public, the reporter, or other officer for inclusion in the record on appeal or review, and certified copies of the order, if any, of which review is sought. The Department may, at its discretion, substitute certified copies for original papers or documents in its possession.

(3) Preparation of Record. Upon tender or deposit by appellant of the estimated cost of preparation, the Department shall prepare the record in accordance with the designations of the parties. The cost of preparation, and reproduction,

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

GNB Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

DER File No. AC 48-111462
AC 48-111463
AC 48-111464
AC 48-111465
AC 48-111466
AC 48-111468

INTENT TO ISSUE

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

The applicant, GNB Incorporated, on October 23, 1985, to the Department of Environmental Regulation for permits to construct air pollution sources at GNB Incorporated's existing lead-acid battery manufacturing plant in Orlando, Orange County, Florida.

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

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30)

days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32301-8241. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

T. E. Hatterschide
John Bottorf, P.E.
Bruce Miller
Tom Sawicki

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 September 5, 1986.

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 G. Adams — Clerk

Sept. 5, 1986 — Date

Technical Evaluation
and
Preliminary Determination

GNB, Incorporated
Orlando, Florida
Orange County

GNB ID		File Number
E1	Pot Furnace Exhaust Hood	AC 48-111462
E2	Electric Pot Furnace	AC 48-111463
E3	Electric Pot Furnace	AC 48-111464
E4	Plate Pasting Operation	AC 48-111465
B1	Pasting, Plate Drying, and Parting Operation	AC 48-111466
B7	Hoffman Vacuum System	AC 48-111468

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

September 4, 1986

I. Applications

A. Applicant

GNB, Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

B. Request

On October 23, 1985, Seabury-Bottorf Associates, Inc., Consulting Engineers, submitted seven applications for permits to construct air pollution sources at GNB, Incorporated's existing lead-acid battery manufacturing plant (SIC 3691). Later, several applications were combined which reduced the number of permits being requested to six. The applications were considered complete on June 30, 1986, when the department received Seabury-Bottorf Associates, Incorporated's June 26, 1986, letter.

C. Project and Location

GNB, Inc.'s lead-acid battery manufacturing plant has been in operation since 1964. The existing plant is located at 11331 Satellite Boulevard, Orlando, Orange County, Florida. The UTM coordinates of this site are zone 17, 460.3 km East and 3142.3 km North. The seven applications were submitted to obtain permits for seven existing sources. These sources were not previously permitted. The permits will incorporate the lead emission standards promulgated by EPA on November 1, 1985, for this plant. To comply with the standards, the company proposes to discharge the emissions from two plate drying and parting operations to the existing baghouse that controls the pasting operation. Presently, these emissions are uncontrolled. No other physical change or change in production or plant operation is included in these applications.

Each source is briefly described on the first page of the proposed permits to construct that are attched to this document.

D. Air Pollutant Emissions

Lead, lead oxides, and sulfuric acid, along with the plastic cases, are used to manufacture lead-acid batteries at this plant. The unit operations covered by the seven applications are primarily sources of lead and particulate matter emissions. Emissions from most of these sources are so small that add on controls are not needed. Several sources use baghouses to reduce the emissions. The following table summarizes the air polluant emissions from these sources. Some of the sources also emit the products of combustion of natural

gas. These emissions are insignificant and not listed in this review.

GNB ID	Source	Control	Emissions PM lb/hr	Emissions PM TPY	Emissions Pb lb/hr	Emissions Pb TPY
E1	Pot Furnace Exhaust	None	1.37	3.42	0.1190	0.298
E2	Elect. Pot Furnace	None	0.49	1.22	0.0096	0.024
E3	Elect. Pot Furnace	None	0.49	1.22	0.0096	0.024
E4	Plate Pasting Operation	None	6.75	13.2	0.1238	0.248
B1**	Pasting, Drying & Parting Operations	baghouse	3.36	6.55	0.2046	0.41
B7	Hoffman Vacuum System	baghouse	3.37	6.57	0.0096	0.019

Lead emissions also occur at the assembly (B2), casting (B3), assembly (B4), assembly (B5), and bulk oxide (B6) operations. The district has issued permits for these sources. Total allowable lead emissions from the plant are 1.68 lbs/hr and 3.5 TPY.

*Although the process weight table (Rule 17-2.610(1)(b), FAC) would allow higher emissions, the lead in the PM would violate the lead standard. As a result, all sources will be regulated by the lead standard and a visible emission standard of 5 percent opacity.

**Modified source represents a combination of the sources previously designated as B1 (Pasting Operation), E5 (Paste Oven), and E6 (Paste Oven).

II. Rule Applicability

A. State Regulations

The unit operations used to manufacture lead-acid batteries are subject to the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code.

The facility is located in an area designated nonattainment for ozone (17-2.410(1)), and attainment for the other criteria pollutants (17-2.420).

Shortly, the plant will be a minor facility because permitted emissions will be less than 100 TPY for any criteria pollutant and less than 5 TPY for lead. The issuance of the requested permits will not increase the emissions from this plant.

The facility is not subject to the prevention of significant deterioration regulations (17-2.500) and new source review for nonattainment area (17-2.510) because the plant will not be a major facility and the request does not result in a significant increase in emissions.

The applications will be reviewed under 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. Any increase in allowable or actual emissions could subject the sources to review under other regulations.

B. Federal Regulations

The request is not subject to 40 CFR 52.21. The lead emissions from the existing sources must comply with the standards published in the November 1, 1985, Federal Register (50 CFR 45606).

III. Technical Evaluation

EPA promulgated the lead emission standards for existing plants in Florida, including GNB, Inc., in the November 1, 1985, Federal Register. GNB, Inc. tested the emissions from the existing sources in February, 1986, and found two uncontrolled sources (E5 and E6, Plate drying) exceeded the published standards. They are now proposing to treat the emissions from these two sources in the existing baghouse (B1) that controls the pasting operation. This will bring the emissions from all sources into compliance with the published standards.

IV. Air Quality Analysis

The emission standards promulgated by EPA were based on an ambient air standard of 1.5 ug/m^3 for lead. The emission standards for all the lead sources at this plant and their ambient air impact are shown in the table attached to Seabury-Bottorf's June 26, 1986, letter. The ambient air impact of lead emissions from the plant is less than 1.5 ug/m^3.

V. Conclusion

Based on the data submitted for GNB, Inc. the department has concluded that the sources covered by the applications can operate in compliance with its ambient air quality standard for lead. The department proposes to issue the permits requested by the applicant. The General and Specific Conditions in the proposed permits, which are attached, will assure compliance of these sources with the air pollution control regulations.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111462
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Pot Furnace Exhaust Hood (E1)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 Pot Furnace Exhaust Hood (GNB ID E1) installation which serves 5 gas-fired (895 CFH) lead pots (1.7 TPH) that feed 9 casting machines at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The draft for the hood is created by a Tabd Model 1-64266 fan that exhausts 10,220 dscfm through a 33 foot high, 2.5 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111462
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS :

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the pot furnace exhaust hood (E1) shall not operate more than 16 hrs/day, 6 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed 1.71 TPH without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 1.37 lb/hr (3.43 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.1190 lb/hr (0.298 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111462
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 5,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111463
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Electric Pot Furnace (E2)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 one electric pot furnace (0.61 TPH) with an exhaust hood (GNB ID E2) installation which serves three grid casting machines at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The draft for the hood is created by a McMaster 2097R32 fan that exhausts 910 dscfm through a 33 foot high, 1 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111463
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111463
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the pot furnace exhaust hood (E2) shall not operate more than 16 hrs/day, 6 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed 0.61 TPH without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 0.49 lb/hr (1.23 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.0096 lb/hr (0.024 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111463
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 5,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111464
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Electric Pot Hood
(E3)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 one electric pot furnace (0.61 TPH) with an exhaust hood (GNB ID E3) installation which serves three grid casting machines at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The draft for the hood is created by a McMaster 2097R32 fan that exhausts 910 dscfm through a 33 foot high, 1 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111464
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the pot furnace exhaust hood (E3) shall not operate more than 16 hrs/day, 6 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed 0.61 TPH without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 0.49 lb/hr (1.23 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.0096 lb/hr (0.024 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111464
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 5,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111465
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Plate Pasting Operation (E4)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 tray exhaust system (GNB ID E4) installation which serves the plate pasting operation (3.1 TPH) at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. The 16,600 dscfm draft from the system is discharged through a 40 foot high, 3 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111465
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111465
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the tray exhaust system (E4) shall not operate more than 15 hrs/day, 5 days/wk, and 52 wks/year.

2. Cast lead grids and lead oxide paste feed to these operations shall not exceed 1.53 TPH each (3.1 TPH total feed) without prior approval of the district office.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111465
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 6.75 lbs/hr (13.5 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.1238 lbs/hr (0.248 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111465
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 4,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111466
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Pasting, Plate Drying, and Parting Operations (B1)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 installation of the 8 inch diameter ducts needed to discharge the emissions from the positive auto MAC 24 paste oven and parting stand (GNB ID E5) and the negative auto MAC 24 paste oven and parting stand (GNB ID E6) to the Carborundum Model 288 CT-2 baghouse that controls the emissions from the pasting operations area (GNB ID B1). The lead feed rate to each oven is 1.53 TPH (3.1 TPH total). The feed to the pasting operation is 4 TPH. The discharge from the baghouse, after the modification, will be 15,190 dscfm through a 52 foot high, 2.5 foot x 2.5 foot stack. The plant is located at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111466
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111466
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The unit operations served by the Carborundum baghouses (B1) shall not operate more than 16 hrs/day, 5 days/wk, and 52 wks/year.

2. Lead feed to these operations shall not exceed the following without prior approval of the district office.

Source	Old GNB ID	TPH
Pasting Operation	B1	4
Paste Oven Positive and Parting Stand	E5	1.53
Paste Oven Negative and Parting Stand	E6	1.53

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111466
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

4. Particulate matter emissions from the pasting operation and two auto MAC 24 ovens and parting stands shall not exceed 3.4 lbs/hr and 6.7 TPY.

5. Inorganic lead emissions from these operations shall not exceed 0.2046 lbs/hr (0.41 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The production units shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111466
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 4,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

17. The permit (AC 48-111466) replaces permit No. AO 48-112909.

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
GNB Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

Permit Number: AC 48-111468
Expiration Date: June 1, 1987
County: Orange
Latitude/Longitude: 28° 23' 58" N
81° 24' 02" W
Project: Hoffman Vacuum System (B7)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 Hoffman Model 4208 A central vacuum system (GNB ID B7) installation that is used for periodic cleanup of the plant and process equipment at the permittee's existing lead-acid battery manufacturing plant located at 11331 Satellite Blvd. in Orlando, Florida. The UTM coordinates of the plant are zone 17, 460.3 km E and 3142.3 km N. When operating, the vacumatic separator, which has a 2:1 air to cloth ratio, discharges 650 dscfm through a 28 foot high, 0.5 foot diameter stack.

The installation shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the Specific Conditions of this permit.

Attachments:

1. Application received October 23, 1985.
2. DER letter dated November 20, 1985.
3. Seabury-Bottorf letter dated April 7, 1986.
4. DER letter dated May 14, 1986.
5. Seabury-Bottorf letter dated June 26, 1986.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111468
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

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

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

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

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

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

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

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

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

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111468
Expiration Date: June 1, 1987

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

GENERAL CONDITIONS:

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

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. This unit shall not operate more than 15 hrs/day, 5 days/wk, and 52 wks/year.

2. Scrap from plant cleanup shall be reclaimed in a secondary lead smelter which has a valid permit issued by an air pollution control agency.

3. Visible emissions from all emission points shall not exceed 5 percent opacity (6 minute average reading) during operation.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111468
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

4. Particulate matter emissions from these operations shall not exceed 3.4 lb/hr (6.8 TPY).

5. Inorganic lead emissions from these operations shall not exceed 0.0096 lb/hr (0.0192 TPY).

6. Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, 9 (excluding Section 2.5), and 12 as described in 40 CFR 60, Appendix A.

7. All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, with the approval of the district office, which results in the highest lead emissions.

8. The plant shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 17-2.620(2), FAC).

9. There shall be no discharges of liquid effluent or contaminated runoff to surface or groundwater without prior approval of the district office.

10. All unconfined emissions of particulate matter generated at this site shall be adequately controlled by capture and disposal in an environmentally sound manner. Yard areas must be watered down should unconfined emissions occur. (Rule 17-2.610(3), FAC).

11. The plant shall comply with all applicable requirements specified in the November 1, 1985, Federal Register (50 FR 45606).

12. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

13. Orange County Pollution Control shall be notified at least 15 days in advance of any compliance tests to afford them an opportunity to have observers present.

14. The unit shall not be operated unless all components of the pollutant collection system are operating properly. Any leaks in the system that allow pollutants to escape shall be repaired promptly. The permittee shall maintain continuous records of process and emission control operations necessary to determine continuous compliance.

PERMITTEE:
GNB Incorporated

Permit Number: AC 48-111468
Expiration Date: June 1, 1987

SPECIFIC CONDITIONS:

15. The permittee shall demonstrate compliance with the conditions of this construction permit and submit a complete application for permit to operate to the district office at least 90 days prior to the expiration date of this construction permit. The permittee may continue to operate in compliance with all terms of this permit until its expiration date.

16. Any permit to operate issued for this source shall limit its use to 4,000 hrs/yr and require an annual operation report which includes, as a minimum, a recent visible emissions and inorganic lead stack tests report. An alternate method, approved by EPA, may be substituted for the annual Method 12 test.

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

SEABURY-BOTTORF ASSOCIATES, INC.

CONSULTING ENGINEERS ANALYTICAL LABORATORY

4595 PARKBREEZE CT. ORLANDO, FLORIDA 32808-1057 305-298-0846

June 26, 1986 Project No. 115-7

MECHANICAL

ELECTRICAL

ENVIRONMENTAL

Mr. Clair Fancy, P. E.
Deputy Chief
Bureau of Air Quality Management
Florida Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, Florida 32301-8241

Subject: Orange Co. - AP
GNB Incorporated
Air Permit Applications

Dear Mr. Fancy:

In response to your 5/14/86 letter requesting additional information, the following is submitted to complete the referenced applications.

1. The maximum annual consumption of the solvents in question will be 200 gallons per year of 111 trichloroethane and 150 gallons per year of acetone.

2. Reclaim scrap is sent to GNB Incorporated's secondary lead smelter at South Fifth St., Frisco, Texas 75034 (EPA #TXD006451090).

3. GNB Incorporated no longer intends to petition for an amendment of the regulation to re-allocate the total allowable lead emissions. To comply with the 0.0048 Lbs./Hr. emission standard for stacks E5 and E6, GNB Incorporated submits the enclosed application. This application is being submitted in place of applications already submitted for Stacks E5 and E6 for which permit fees have previously been submitted. The application is also a request to modify Permit #AO 48-112909 for the B1 Baghouse. Process exhaust from the two plate paste ovens (E5 & E6) will be ducted to and controlled by the B1 Baghouse. The allowable emission rates for B1, E5 & E6 will be combined to give a total allowable rate that will not violate the NAAQS for lead.

If you need additional information or have any questions, please call me at the above number.

Very truly yours,

Roger T Caldwell

Roger T. Caldwell
Vice President/Environmental Division

DER

JUN 30 1986

BAQM

RTC/ac Encls: 4 cys. Application Modification.

cc: Mr. Donald W. Groff (w/Application)
Mr. Clay Shimeall (w/Application)

~~Clair~~, ~~Bill~~ 7/1

Enc. Response -
Hillard + Dist.
copied
Please return for
file

Patty

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

APPLICATION TO OPERATE/~~CONSTRUCT~~ AIR POLLUTION SOURCES

SOURCE TYPE: GNB ID #B1 - Two Plate Paste Drying Ovens & Two Plate Parting Stands [ ] New[1] [X] Existing[1]

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

COMPANY NAME: GNB Incorporated COUNTY: Orange

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) Plate Drying & Parting Operation with Baghouse

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81 ° 24 ' 02 "W

APPLICANT NAME AND TITLE: Donald W. Groff, Manager of Facilities Engineering

APPLICANT ADDRESS: P. O. Box 64140, St. Paul, MN 55164

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

I certify that the statements made in this application for an operation 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: Donald W Groff

Donald W. Groff, Manager Facilities Engineering
Name and Title (Please Type)

Date: 6-23-86 Telephone No. 612/681-5128

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

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

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

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

Signed _____

John W. Bottorf, Jr.

Name (Please Type)

Seabury-Bottorf Associates, Inc.

Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057

Mailing Address (Please Type)

Florida Registration No. 13089 Date: 6/26/86 Telephone No. 305/298-0846

SECTION II: GENERAL PROJECT INFORMATION

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

This is a request to modify Permit #AO 48-112909 to allow the ducting of exhaust from Stack E5 (Positive Plate Paste Drying Oven) and Stack E6 (Negative Plate Paste Drying Oven) to the B1 Baghouse manufactured by Carborundum, Model #288CT-2 that has a removal efficiency of 99.5%.

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

Start of Construction After Permit issuance Completion of Construction 3 months after start

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.)

Baghouse	$32,500.00
Ductwork Charge	6,000.00

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

AO 48-112909 issued 2/20/86 expires 2/17/91 (copy enclosed)

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; 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) N/A

1. Is this source in a non-attainment area for a particular pollutant? _____

   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. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

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

   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.

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		
(Neg.Plate Oven) Lead Grids w/Paste	Pb	100	3056.4	(A)
(Pos.Plate Oven) Lead Grids w/Paste	Pb	100	3056.4	(B)
(Neg.Parting Stands) Finished Plates	Pb	100	3056.4	(C)
(Pos. Parting Stand) Finished Plates	Pb	100	3056.4	(D)

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

1. Total Process Input Rate (lbs/hr): 6112.8 (Two Ovens)

2. Product Weight (lbs/hr): 6112.8

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr *	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead (Pb)	0.0064	0.0133	SIP	0.2046	5011	2.67	(E)

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

*Total Allowable = B1 + E5 + E6
= .195 + .0048 + .0048
= .2046 lbs./hr.

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)
Baghouse Carborundum Model 288CT-2	Pb	99.5	<1 and larger	Manufacturer's Rating

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Pos. Plate Drying Oven Natural Gas	206.9	243.4	0.25
Neg. Plate Drying Oven Natural Gas	206.9	243.4	0.25

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

Fuel Analysis:

Percent Sulfur: <0.01% Percent Ash: <0.01%

Density: 0.044 lb./CF lbs/gal Typical Percent Nitrogen: .49%

Heat Capacity: 1027 BTU/CF BTU/lb N/A 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 dispoaal.

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

Stack Height: 52 ft. Stack Diameter: 2.5 x 2.5 ft.

Gas Flow Rate: 15,950 ACFM 15,190 DSCFM Gas Exit Temperature: 96.5 °F.

Water Vapor Content: 1.8 % Velocity: 42.53 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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, deecription 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.

GNB Incorporated

ADDENDUM TO SECTION II,A.

This Application is being submitted to replace the construction applications submitted for the two Plate Paste Drying Ovens, each an Auto MAC 24 Oven (Stacks E5 and E6). Currently B1 Baghouse manufactured by Carborundum, Model 288CT-2 controls Pb emissions from the two plate parting stands only. This Baghouse is a roof mounted, shaker type unit with 5 inch diameter x 14 Ft. long polyester sateen bags to give a total cloth area of 5400 Sq.Ft. Currently it handles 12,830 ACFM with an air to cloth ratio of 2.38:1. When Stacks E5 and E6 are connected to this Baghouse, it will handle 15,950 ACFM with an air to cloth ratio of 2.95:1. This project should result in full compliance with both source and ambient emission standards. The attached table shows the true impact to the NAAQS, the impact based on the current emission standards with E5 & E6 having separate stacks and the impact based on the current emission standard combining B1, E5 & E6 and being exhausted through the B1 Baghouse. NOTE: The hood that controls possible dust from the wet paste application machine is ducted to Stack E4, not Baghouse B1, as originally believed. The dust loading from this pasting machine is very low due to the high moisture content of the paste.

GNB Incorporated

INPUT RATE/PRODUCT WEIGHT

Negative Plate Paste Drying Oven (MAC 24)

10,800 plates/hr. (max.) x 0.283 lbs./plate (dry) = 3056.4 lbs./hr.

Positive Plate Paste Drying Oven (MAC 24)

10,800 plates/hr. (max.) x 0.283 lbs./plate (dry) = 3056.4 lbs./hr.

TOTAL Input/Product Rate (Two Ovens) = 6112.8 lbs./hr.

Two Plate Parting Stands (B1) - Already Permitted -

The input rate/product weight is equal to the rate of the plate drying ovens. This rate is 6,112.8 lbs./hr. or 3054.6 lbs./hr./parting stand.

GNB Incorporated

POTENTIAL (UNCONTROLLED) Pb EMISSIONS

POTENTIAL

$$\text{B1 (Pasting/Parting)} = \frac{\text{Actual Emissions (Test Data)}}{1 - \text{Efficiency}}$$

$$= \frac{.0063}{1 - .995} = 1.26 \text{ lbs./hr.}$$

E5 (Positive Plate Paste Oven) = 0.0107 lbs./hr. (Test Data)

E6 (Negative Plate Paste Oven) = 0.0143 lbs./hr. (Test Data)

Total = 1.285 lbs./hr.

$$\times \frac{4160 \text{ hrs./yr.}}{2000 \text{ lbs./ton}} = 2.67 \text{ Tons/Yr.}$$

ACTUAL Pb EMISSIONS

Actual = Potential (1 - efficiency)

Actual = 1.285 lbs./hr. (1 - .995) = 0.0064 lbs./hr.

$$\times \frac{4160 \text{ hrs./yr.}}{2000 \text{ lbs./ton}} = 0.0133 \text{ Tons/Yr.}$$

Emission Calculations are based on EPA Method 12 Stack Tests and a 99.5% control efficiency.

Dry up to 180 pasted automotive panels per minute – SAVES you fuel.

The autoMAC oven features an energy saving combination of gas infrared and convection heating for surface drying automotive size pasted panels at speeds adjustable from 80 to 180 panels per minute. AutoMAC series of ovens is available in a 24 or 34 foot (7,315 or 10,363 mm) length. Each is designed to handle thin plates made from regular, low, or non-antimony grids.

- **ENERGY-EFFICIENT – Combination infra-red and convection heating.**

The autoMAC oven series features a production proven two zone oven construction. A downdraft ventilating system recycles heat from the infra-red-heated zone and reuses it in a convection-heated zone. The system provides complete evacuation of gases and helps prevent escape of heat–saving you energy. Additional fuel savings are generated by the automatic temperature control (standard) which keeps oven temperature constant under load or no-load conditions. Heavily fiberglass insulated lay-on access doors also help retain heat.

- **FLEXIBLE – range of speeds, BTU input.**

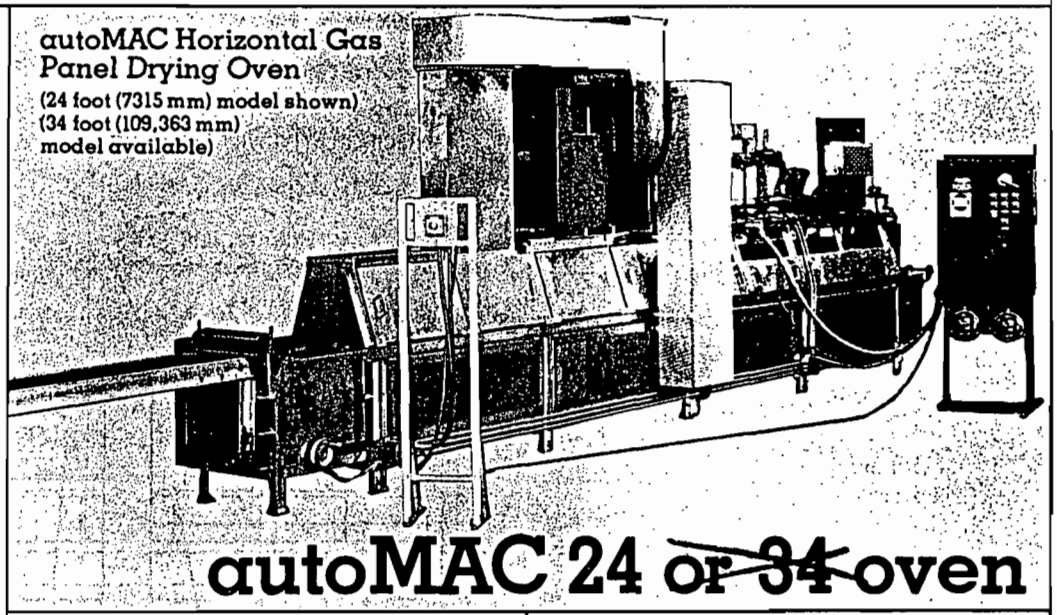
AutoMAC is available as a 24 or 34 foot (7,315 or 10,363 mm) oven, each unit having built-in 2 foot (610 mm) incoming and outlet conveyors. Each model is half infra-red heated zone and half convection-heated zone, allowing the 34 foot model to provide the same quality drying at lower operating temperatures. A 1 h.p. electric motor with a gear-reducer drive controls oven speeds, from 80 to 180 plates per minute. The firing rate is infinitely variable from 100,000 to 700,000 BTU's per hour for the model 24. The model 34 is variable from 100,000 to 1,050,000 BTU's per hour. For safety, autoMAC ovens have an automatic spark ignition. Lower drying temperatures mean gas energy savings, lower thermal shock for plates at oven exit, extended oven life and less day-to-day maintenance.

- **EASY TO OPERATE – one operator, simple controls, uncomplicated design.**

A single operator can handle the operation because controls are simple. For your production flexibility, operator controls can be built into either the left or right side of the oven (when facing the incoming conveyor). Horizontal plate handling minimizes plate damage and reduces pelleting. The little debris that drops hits the slanted oven floor and is directed to the four, easily accessible debris clean-out doors (six on 34-foot model). Low ambient temperatures keep operator comfortable, protect equipment and allow mounting of blowers, burners and controls above oven, out of the dirt and hazards of floor mounting.

- **EASY UNLOADING**

A 10-foot (3048 mm) horizontal off-bearing conveyor using four block chains provides for horizontal shingle stacking and unloading. A 1 h.p. motor drives the belt oven conveyor and the 4-chain off-bearing conveyor.



autoMAC Horizontal Gas Panel Drying Oven
(24 foot (7315 mm) model shown)
(34 foot (109,363 mm) model available)

autoMAC 24 ~~or 34~~ oven

- **SAFETY FEATURES – electrical and combustion controls include safety and product protection.**

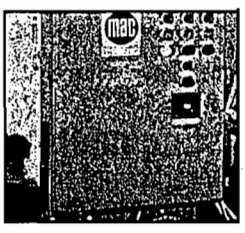
Failure of any important components to operate properly automatically interrupts fuel gas supply, resulting in burner shutoff. Main electric control panel is mounted on a separate stand to reduce potential harm to components from heat or vibration. Automatic temperature controller is on a separate stand near oven outlet.

- **QUALITY PRODUCT – top results with soft-metal grids.**

Even thin, low-and non-antimony grids are positively conveyed through the drier. Free-floating belt conveyor support rails keep plates flat and even for proper surface drying. Rails are free to expand so they will not warp (which could cause a production interruption), and can be lifted out in five-foot (1524 mm) sections.

Infra-red Zone/Convection Zone saves energy by using heat to its fullest.

Infra-red zone (left) has two rows of burners mounted above the oven conveyor so dust and dirt does not clog them. A 1½ H.P. combustion-air blower sets up downdraft and begins recirculation of heated air. (far left). A 7½ H.P. blower (right) creates negative pressure in the infrared zone to draw the heat to the convection zone (at right) and provide positive exhaust of gas and fumes. (photo shows eight access doors removed from one side–34 foot (10,363 mm) model has 12 removable doors on each side). The autoMAC ovens operate with either natural or LP gases.



Free standing control panel may be mounted remotely or near oven. Simple controls are grouped for easy operation.

Lay-on, removable access doors have two inches of high-temperature fiberglass insulation completely enclosed in steel. Operator can get into any section of the furnace quickly and easily. (Photo shows last burner in infra-red zone and beginning of convection zone.)

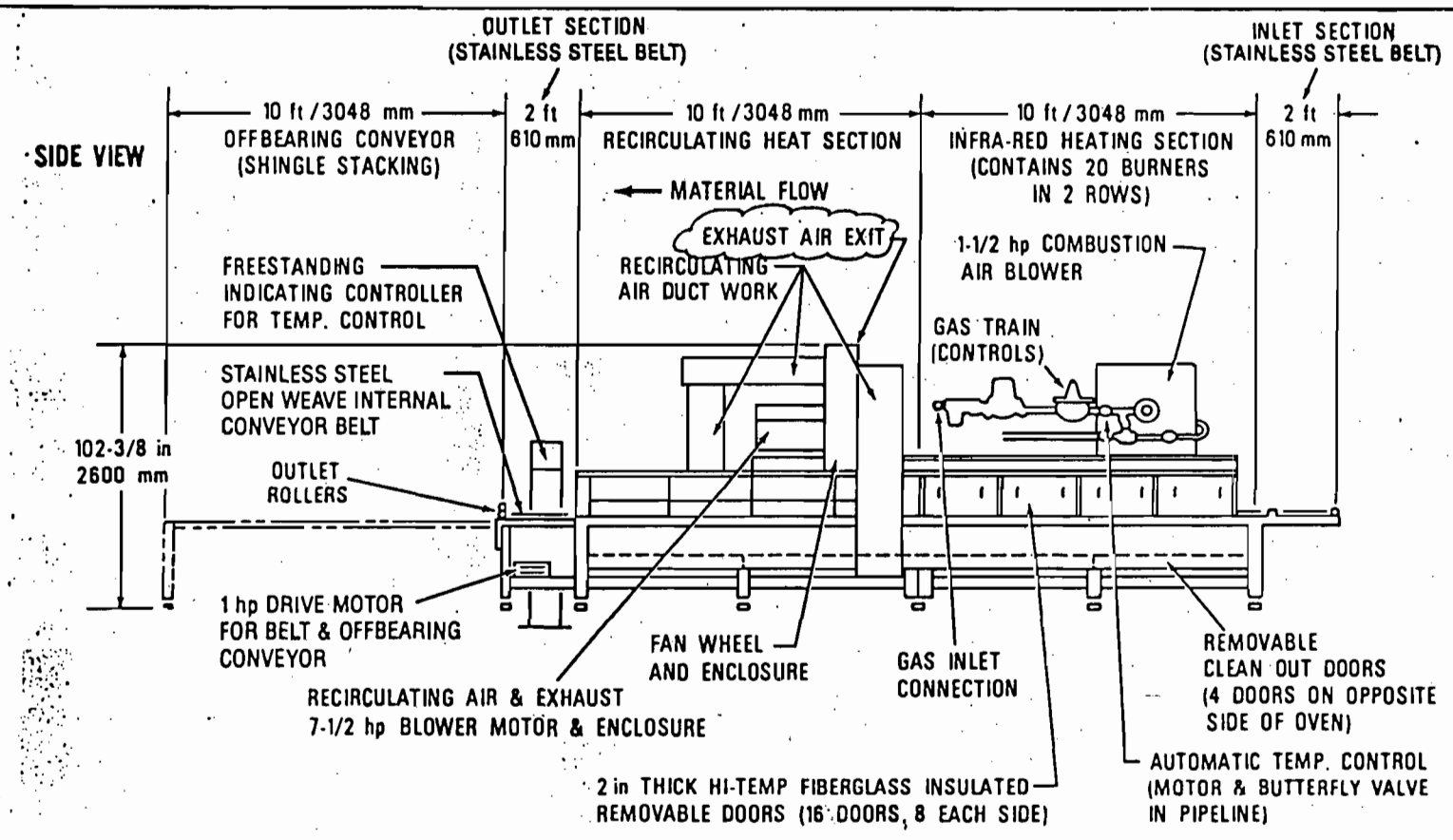
Horizontal, open weave stainless steel belt. (1-inch square openings) moves plates through the oven. No vertical hanging to bend softer, low antimony or calcium lead alloy grids. Open weave provides more even drying (33% better air flow below plates) and eliminates chain burn.

Automatic Temperature Control saves fuel.

Temperature control maintains more economical oven temperature. Controller maintains constant oven temperature under "load" or "no-load" conditions saving energy and providing an established temperature even when plate flow interruptions occur. Standard, single-point firing rate control operates a separate motor and butterfly valve in the pipeline. Manometer (water gauge) provides a separate indication of firing rate.

Slanted oven floor gives easy clean-out. Oven floor is severely slanted to direct pelleting and debris to the four easily accessible clean-out doors. (six on 34-foot model).

TECHNICAL DATA
autoMAC 24 or ~~34~~ Ovens



Horizontal Gas Drying Ovens for Automotive Panels

Required User Data:

- specify 24 or 34 autoMAC
- specify gas type and supply pressure.
- specify right or left hand operator control location (when facing the incoming conveyor).
- specify electrical requirement.

Foundation:

Standard 4-inch (102 mm) thick reinforced concrete floor or pad. Holes for lag bolting to floor are provided.

Production Capabilities:

Panel width — From 6 to 18 inches (152.4 to 457 mm)

80 to 180 pasted panels/minute.

Operating temperature range: 250 to 900°F. (120 to 480°C.)

24-foot (7315 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 300° to 400°F. (148° to 204°C.)

exit temperature 120°F. (49°C.)

34-foot (10.363 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 250° to 280°F. (121° to 138°C.)

exit temperature 110°F. (43°C.)

Average Ambient Temperature: 100°F. one foot from oven (room at 70°F., oven at 400°F.)

Operation Requirements:

Personnel	One, semi-skilled
Standard Electrical	230/460 V., 3-Phase, 60 Hz. 9.3 KW
Electric Motors	1 HP, 1800 RPM @ 60 Hz., 143 T frame, TEFC 7½ HP, 1800 RPM @ 60 Hz., 213 T frame, TEFC 1½ HP, blower motor (integral)
Typical Electrical Consumption (at rated capacity)	7.5 KW/Hr. @ 230 V. or 460 V.
Fuel Requirements (Standard)	Natural Gas – 600 cu. ft. per hr. @ 6" W.C. (17 cu. meters per hr. @ 152 mm W.C.)

autoMAC ovens operate with either natural or LP gases on a gas supply pressure range of .22 psi (6 inch W.C.) to 1 psi (28 inch W.C.).

Typical Fuel Consumption (at rated capacity)	250 cu. ft. per hr. @ 250,000 BTU/Hr. (7.1 cu. meters/hr. @ 250,000 BTU/Hr.)
Hydraulics	None
Water	None
Compressed Air	None
Ventilation	Blower provided in oven, customer provides exhaust to roof. Slight negative pressure in oven due to 4000 C.F.M. recirculating blower. Approximately 2500 C.F.M. with 1500 C.F.M. exhausting.
Flue Discharge	Water vapor and products of complete combustion approximately 1500 C.F.M.

Approximate Unit Specifications:

Uncrated data autoMAC 24 autoMAC 34

Length: 408/528 inches (10,363/13,411 mm); Width: 54/54 inches (1372/1372 mm); Height: 85/85 inches (2159/2159 mm); Weight: 5500/7000 pounds (2500/3175 kg).

Crated data autoMAC 24

Crate A: 168L x 42W x 92H inches (4267L x 1067W x 2337H mm); Crate B: 168L x 37W x 61H inches (4267L x 940W x 1549H mm); Crate C: 144L x 37W x 46H inches (3658L x 940W x 1168H mm; Crated weight: 6500 pounds (2948kg).

Crated data autoMAC 34

Crate A: 193L x 43W x 86H inches (4902L x 1092W x 2184H mm); Crate B: 133L x 47W x 58H inches (3378L x 1194W x 1473H mm); Crate C: 170L x 38W x 59H inches (4318L x 965W x 1499H mm); Crate D: 145L x 42W x 46H inches (3683L x 1067W x 1168H mm); Crated weight: 7900 pounds (3583 kg).

MAC Engineering and Equipment Company, Inc.
2775 Meadowbrook Road, Benton Harbor, Michigan 49022 U.S.A.
Telephone: (616) 925-3295 Telex: 729448 Cable: MACQUIP

Printed in U.S.A.

data mac

CIRCULATE TO _____

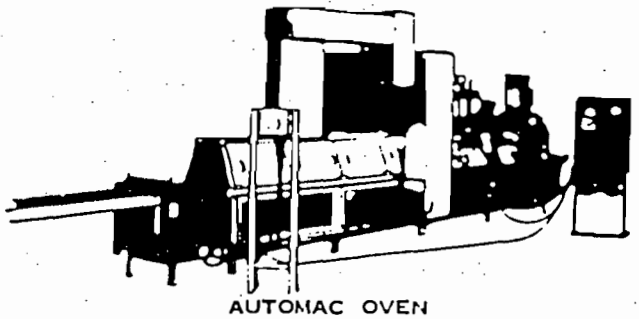
MAC Engineering and Equipment Company, Inc. 2775 Meadowbrook Road, Benton Harbor, Michigan 49022 U.S.A. Telephone (616) 925-3295 Telex 729443 Cable MACQUIP

DECEMBER 18, 1964

OVERDRYING CAN DAMAGE PLATES AND WASTE FUEL

OVERDRYING YOUR PLATES ROBS YOUR BATTERIES OF FULL PERFORMANCE. WASTING FUEL IS A COSTLY EXPENSE.

MOST BATTERY MANUFACTURERS AGREE, PROPER PLATE DRYING IMMEDIATELY FOLLOWING PASTING SHOULD ONLY BE SKIN OR SURFACE DRYING TO PREVENT STACKED PLATES FROM STICKING TOGETHER DURING CURING/HYDROSETTING. OTHER-OVENS THAT OVER-EXPOSE YOUR PASTED PANEL TO TOO MUCH HEAT CAN PREVENT PROPER CURING AND BE A CAUSE OF PASTE PELLET FALLOUT

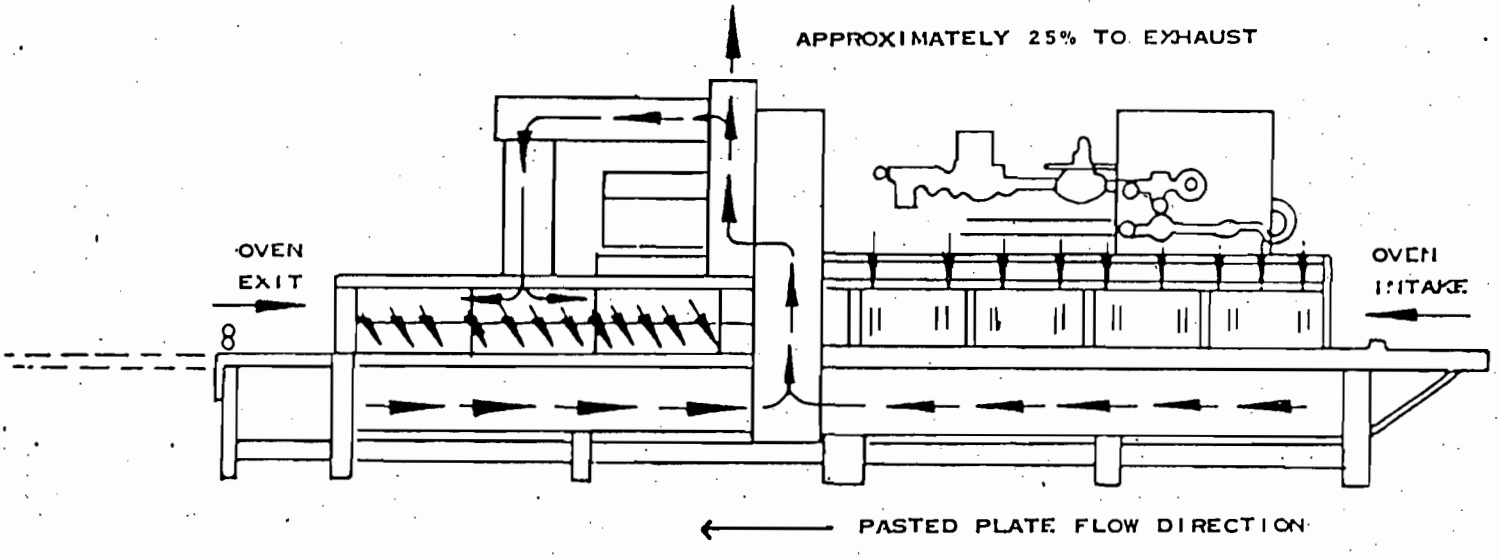


AUTOMAC OVEN

- MAC - ENERGY EFFICIENT DRYING

MAC IS A LEADER IN PRODUCING ENERGY EFFICIENT OVENS DESIGNED TO SURFACE FLASH DRY YOUR PLATES.

ALL MAC OVENS FEATURE A FUEL SAVING TWO-ZONE DESIGN. THE FIRST ZONE USES EITHER GAS OR ELECTRIC INFRA-RED HEAT, BUT YOU DON'T EXHAUST THAT HEATED AIR. YOU RE-USE IT IN THE SECOND OVEN ZONE. THE DIAGRAM ILLUSTRATES THE AIR FLOW IN ALL MAC OVENS.



RE-USING THE HEATED AIR FROM THE FIRST ZONE AGAIN IN THE SECOND ZONE IS THE LOW TEMPERATURE, ENERGY SAVINGS SECRET. THE ALREADY HEATED AIR FROM THE FIRST ZONE IS SWIRLED AROUND YOUR PASTED PLATES IN THE SECOND MAC OVEN ZONE. THE TOTAL COMBINATION OF INFRARED HEAT, RE-USED HOT AIR, AND FAST MOVING AIR RESULTS IN UP TO 50% ENERGY SAVINGS COMPARED TO OTHER-OVENS - AND IF THAT OTHER-OVEN OVERDRIES YOUR PLATES, YOUR BATTERY'S PERFORMANCE CAN SUFFER

- MAC - LOWER DRYING TEMPERATURES

MAC OVENS USE LOWER DRYING TEMPERATURES TO AVOID POTENTIAL OVERDRYING. THE CHART SUMMARIZES REPORTS FROM USERS OF THE AUTOMAC 24 OVEN, WHICH USES EITHER NATURAL OR PROPANE GAS TO GENERATE THE INFRARED HEAT.

PASTER AND OVEN SPEED (PANELS/MINUTE)	PLATE DATA (146MM WIDE X 121 MM HIGH) THICKNESS INCH/MM	WEIGHT IN GRAMS	TYPICAL MOISTURE PERCENT ENTERING OVEN	PERCENT EXITING OVEN	TYPICAL OVEN TEMPERATURES (DEGREES IN CENTIGRADE) PASTE FROM BALL MILL OXIDE	PASTE FROM BARTON OXID
160	.047/1.2	90 GR	12 - 13 %	8 - 9 %	370 - 400 °C	310 - 340 °
80	.047/1.2	90	12 - 13	8 - 9	290 - 320	230 - 260
160	.083/2.1	125	12 - 13	8 - 9	450 - 480	390 - 420
80	.083/2.1	125	12 - 13	8 - 9	370 - 400	310 - 340

(ABOVE DATA SUMMARIZED FROM INDUSTRY REPORTS FOR INFORMATION ONLY. INDIVIDUAL CASES MAY VARY.)

- MAC OVENS - FEATURES AND MORE FEATURES

AT SPEEDS UP TO 180 AUTOMOTIVE PANELS PER MINUTE FOR AUTOMAC OVENS AND NEARLY 40 FEET PER MINUTE FOR INDUSTROMAC OVENS, YOUR MAC OVEN SURFACE DRYS PASTED PANELS IN A HORIZONTAL POSITION TO MINIMIZE PLATE DAMAGE AND PELLETING. COMPARE THESE ADDITIONAL FEATURES:

- LOWER DRYING TEMPERATURES - AVOIDS PLATE OVERDRYING AND SAVES FUEL. REDUCES THERMAL SHOCK AS PLATES EXIT OVEN, AND KEEPS YOUR PLANT COOLER.

- AUTOMATIC TEMPERATURE CONTROL AVAILABLE - MAINTAINS CONSTANT OVEN TEMPERATURE UNDER LOAD AND NO-LOAD CONDITIONS.

- OPEN-WEAVE STAINLESS STEEL BELT IN THE OVEN - THIN AND SOFT GRID PLATES REST IN A NON-DAMAGING HORIZONTAL POSITION DURING DRYING. BELT PROMOTES MORE EVEN DRYING, BEST PLATE SUPPORT, NO PLATE DROPPING, AND NO CHAIN BURN ON YOUR PLATES. NO COSTLY AND FREQUENT CHAIN REPLACEMENT. YOUR OPEN-WEAVE STAINLESS STEEL BELT LASTS AND LASTS - YEARS LONGER THAN CHAINS.

- INFINITELY VARIABLE FIRING RATE - 100,000 TO 700,000 BTU'S ON THE AUTOMAC 24 OVEN OR 200,000 TO 1,200,000 BTU'S ON THE INDUSTROMAC 300 OVEN. TYPICALLY, MAC OVENS OPERATE AT ONLY 25% TO 40% OF THEIR RATED MAXIMUM. OTHER-OVENS LIST THEIR TYPICAL OPERATING RANGE AS 60% TO 70% OF THEIR 1,200,000 BTU MAXIMUM. THIS MEANS MAC COULD PROVIDE OVER A 50% DAILY ENERGY SAVINGS FOR YOU.

- AIR EXHAUST WORKTABLE OPTION - CONVENIENT DUST AND DEBRIS COLLECTING WORK STATION AROUND YOUR OFFBEARING CONVEYOR. YOU HAVE A CLEANER PLANT ENVIRONMENT.

WHICHEVER MAC AUTOMOTIVE OR INDUSTRIAL OVEN BEST FITS YOUR NEEDS, MAC QUALITY AND PERFORMANCE IS THERE. IN OVER 50 COUNTRIES AROUND THE WORLD, MAC EQUIPMENT IS SAVING BATTERY MANUFACTURERS MONEY.

MAY WE SEND YOU FURTHER DESCRIPTIVE LITERATURE PLUS A PRICE AND DELIVERY QUOTATION TODAY?

Donald C. Melnik

DONALD C. MELNIK
VICE PRESIDENT MARKETING

P.S. EVERY MAC OVEN FEATURES 40 DEGREE ANGLED VENTING IN THE SECOND ZONE DUCTWORK. THIS DIRECTS THE RECIRCULATED AIR BACK TO THE OVEN'S CENTER. THE RESULT IS FASTER MOVING HOT AIR ACROSS THE PANEL SURFACES TO IMPROVE YOUR PLATE DRYING. ALSO, POTENTIAL LEAD-IN-AIR AT THE OVEN EXIT IS REDUCED SINCE THE AIR IS RETAINED IN YOUR OVEN.

The CT-2 Welded Module Dust Collector

Factory assembled, the CT-2 welded module dust collector offers a tested, air-tight seal at all joints and seams. Two basic units are available: 264 and 288 bags, each 14 feet in length.

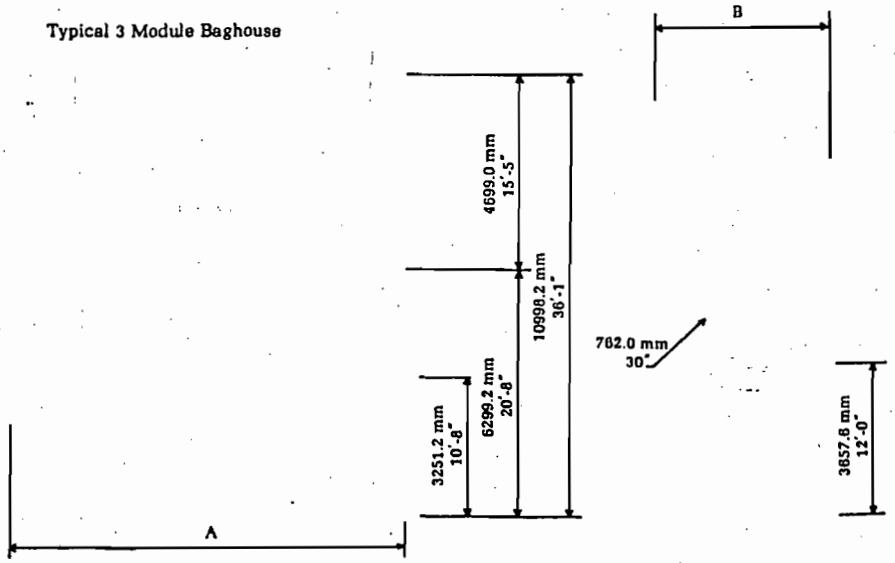
The unit features an all-welded casing and hopper of 10 gauge steel designed to withstand required static pressure. It is available in single units that can be grouped and operated as a multiple unit dust collector. For continuous operation, one of the units is closed off by a damper and shaker action takes place while other individual units continue operation. This tandem set-up can mean continuous operation and increased capacity.

Suction or pressure operations are possible. The inlet is located at the hopper; the outlet at the top of the collector. An optional upper and lower access platform permits inspection of the shaker mechanism and access to the collector interior. An access platform inside the casing permits bag inspection and replacement.

Each unit has a 3HP, 1800 RPM motor, standard . . . in the heavy construction of the shaker mechanism.

Installation can be quickly and simply accomplished by a maintenance or building crew. A detailed, step-by-step manual is provided with every CT-2 unit.

Typical 3 Module Baghouse

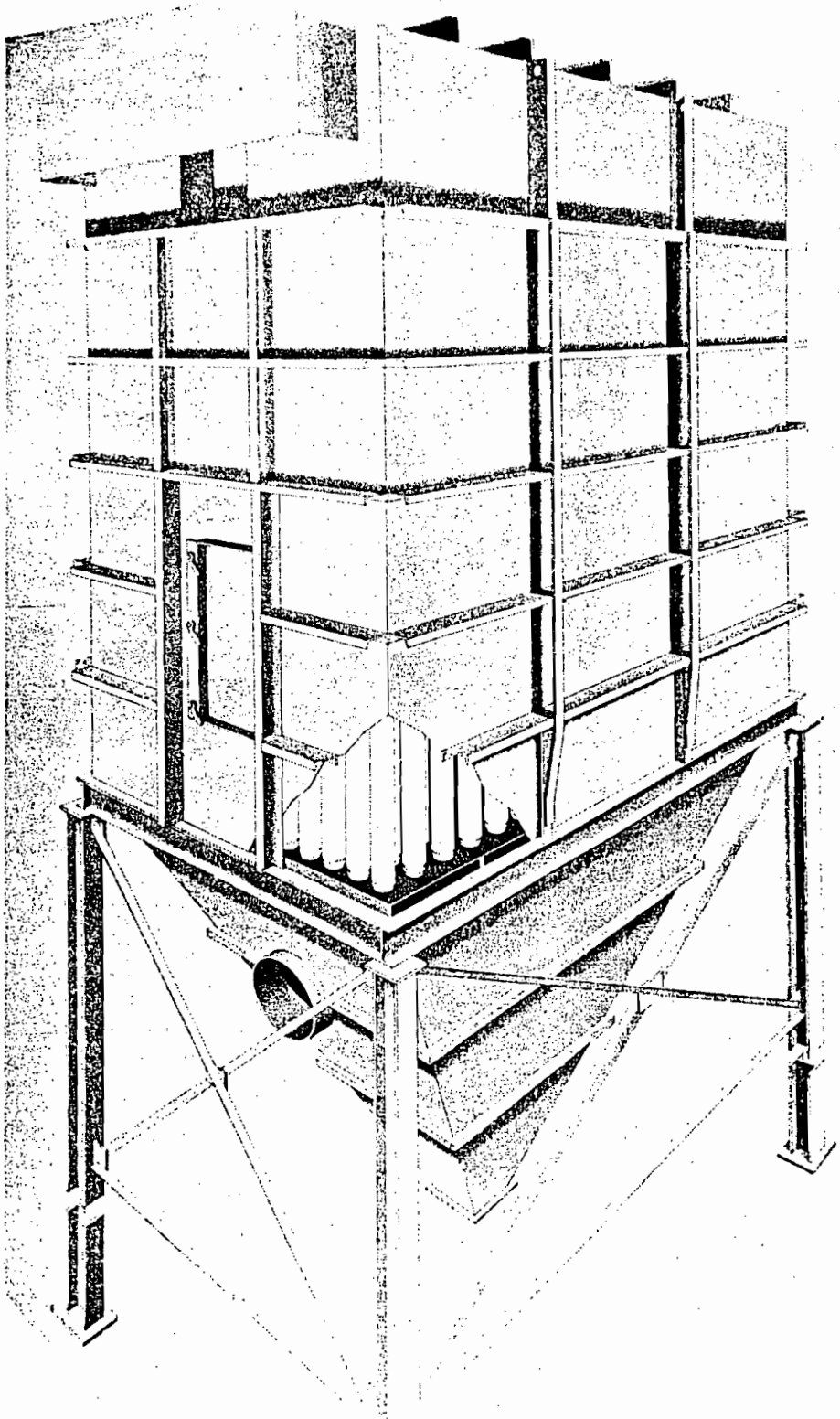


English

Col. Size	No. of Modules	Dimension "A"	Dimension "B"	No. Tubes	No. Hoppers	Shaker Motors No.	Shaker Motors HP.	Max. Weight	Cloth Area sq. ft. Gross	Cloth Area sq. ft. Net
264	1	11'8"	15'1"	264	1	1	3	10450	4950	—
264	2	21'8"	15'1"	528	2	2	3	20900	9900	4950
264	3	31'8"	15'1"	792	3	3	3	31350	14850	9900
264	4	41'8"	15'1"	1056	4	4	3	41800	19800	14850
264	5	51'8"	15'1"	1320	5	5	3	52250	24750	19800
264	6	61'8"	15'1"	1584	6	6	3	62700	29700	24750
288	1	11'8"	16'3"	288	1	1	3	12900	5400	—
288	2	21'8"	16'3"	576	2	2	3	25800	10800	5400
288	3	31'8"	16'3"	864	3	3	3	38700	16200	10800
288	4	41'8"	16'3"	1152	4	4	3	51600	21600	16200
288	5	51'8"	16'3"	1440	5	5	3	64500	27000	21600
288	6	61'8"	16'3"	1728	6	6	3	74400	32400	27000

Metric

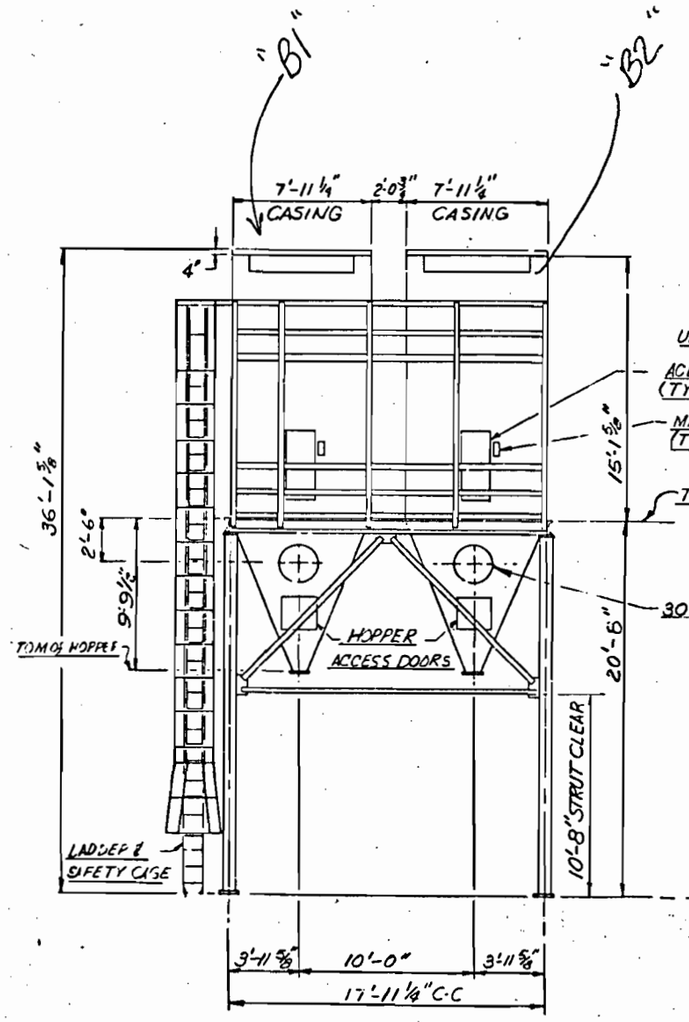
Col. Size	No. of Modules	Dimension mm "A"	Dimension mm "B"	Max. Weight kg	Cloth Area m^2 Gross	Cloth Area m^2 Net
264	1	3556	4597	4740	469.86	—
264	2	6604	4597	9480	919.71	469.86
264	3	9652	4597	14220	1379.57	919.71
264	4	12700	4597	18960	1839.42	1379.57
264	5	15748	4597	23700	2299.28	1839.43
264	6	18796	4597	28440	2759.13	2299.28
288	1	3556	4953	5851	501.66	—
288	2	6604	4953	11703	1003.32	501.66
288	3	9652	4953	17554	1504.98	1003.32
288	4	12700	4953	23406	2006.64	1504.98
288	5	15748	4953	29257	2508.30	2006.64
288	6	18796	4953	33748	3009.96	2508.30



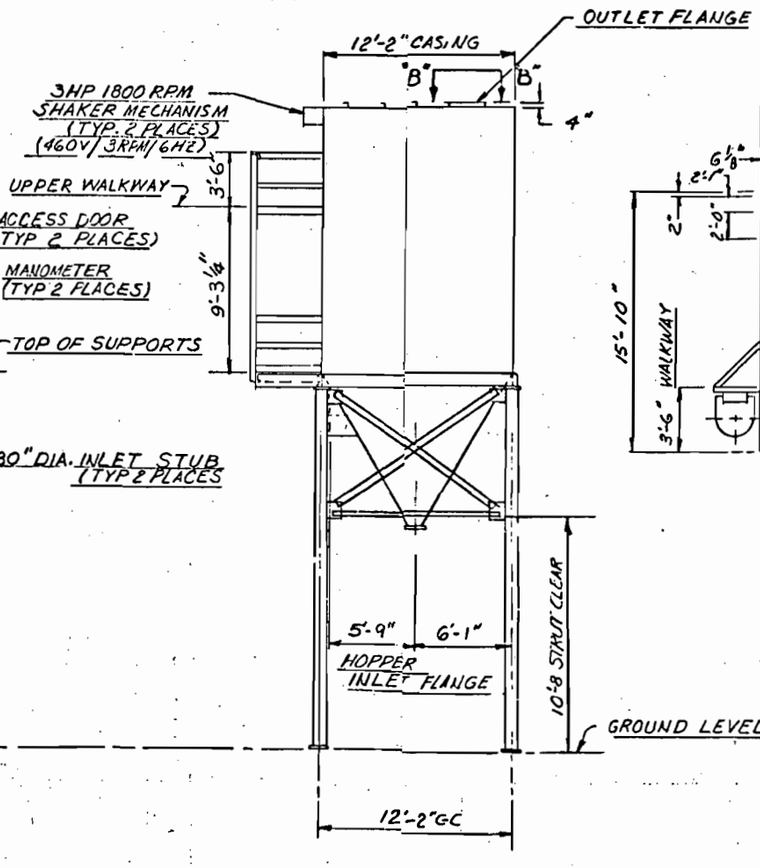
288 CT

SINGLE MODULE

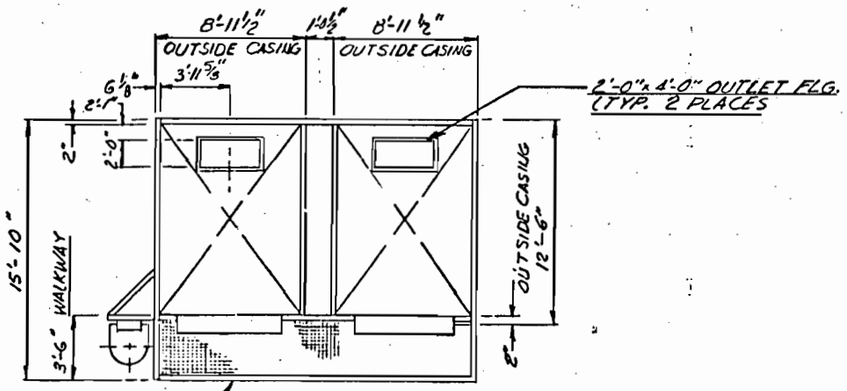
02 03 29 D 002



SIDE ELEVATION



END VIEW
LADDER & SAFETY CAGE OMITTED FOR CLARITY



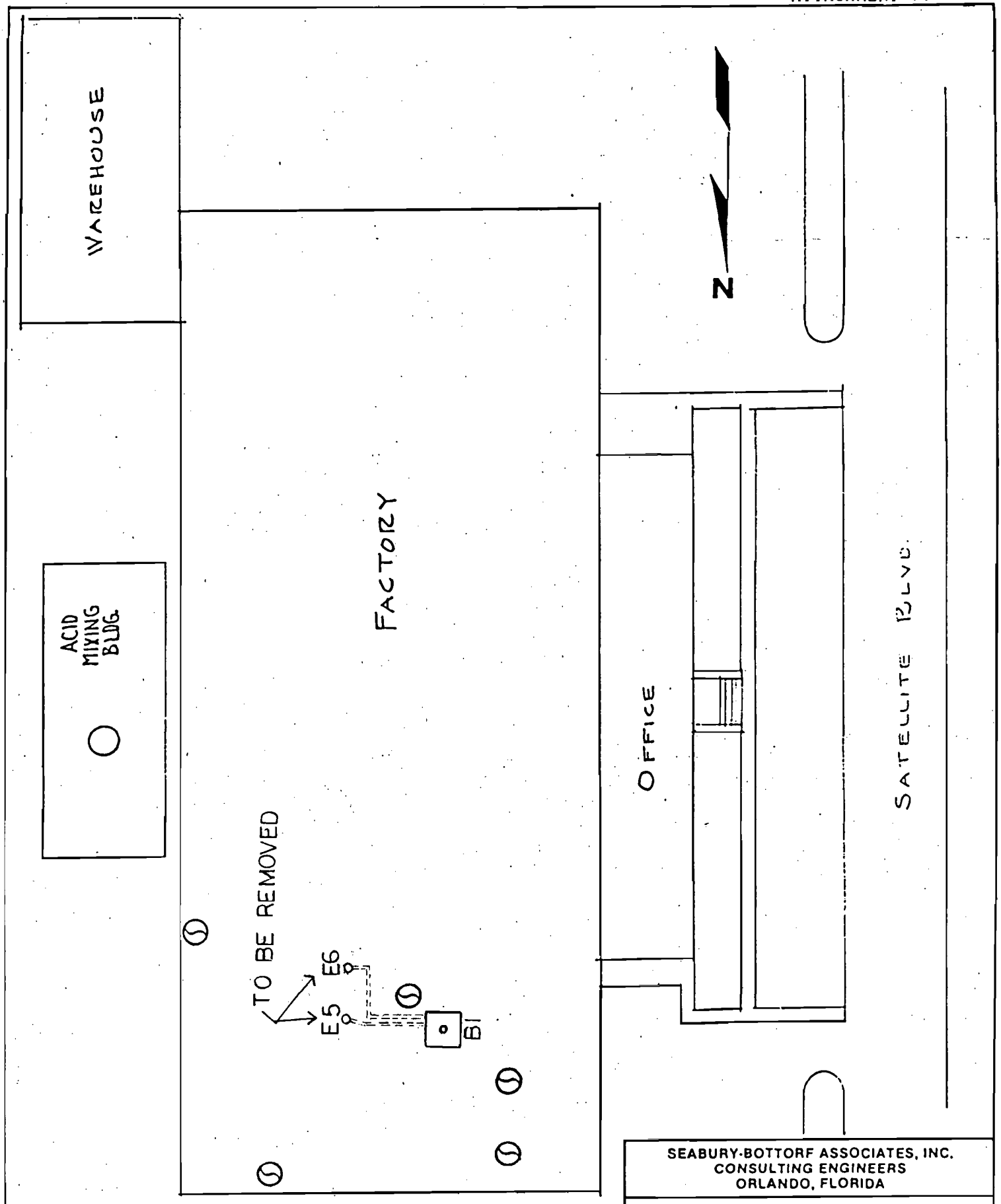
WALKWAY & RAILING
PLAN VIEW

CUSTOMER FURNISHES:
FOUNDATIONS AND ANCHOR BOLTS
DUST CONTROL PIPING
EXHAUSTER INLET AND OUTLET PIPING
ELECTRIC WIRING AND CONDUIT

DOUBLE MODULE

DO NOT SCALE DRAWING		ENG'R'G. B/M	
DRAWN	T.N. 7-17-75	ORDER NO.	75-160-1-01-01
CHK.	SPP 8-6-75	TITLE	GENERAL ARRANGEMENT & SECTION 286 WELDED CASING
APP.	L.J.C.		
DATE	8-6-75		
SCALE:		DWG. NO.	02 03 29 D 002
CARBORUNDUM POLLUTION CONTROL DIVISION		SHEET	1 OF 2

1/16" | 1/8"-1/4" | 3/8"-3/4" | 1/2"-1"



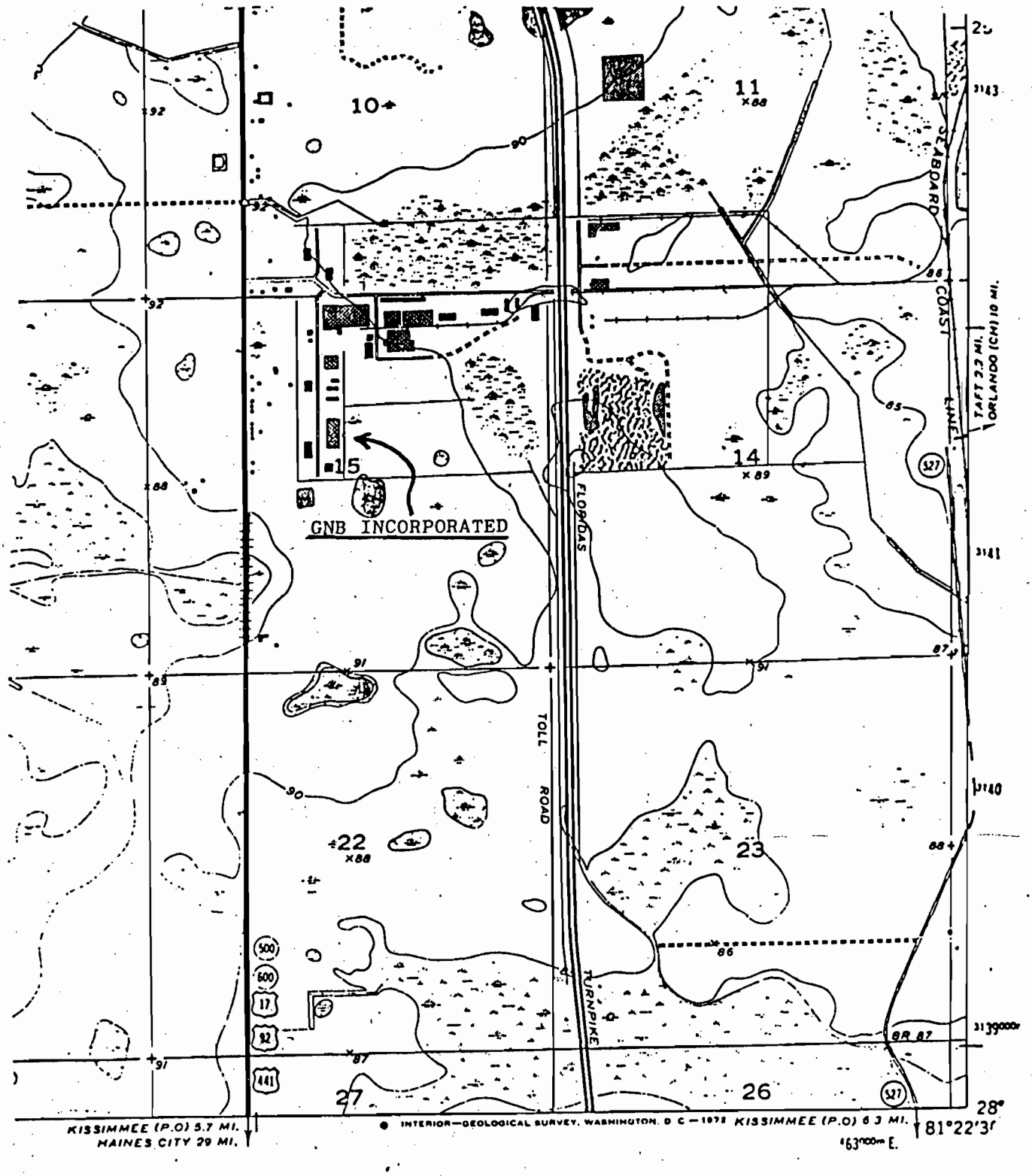
SITE PLAN
N.T.S.

Revised 6-10-86

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

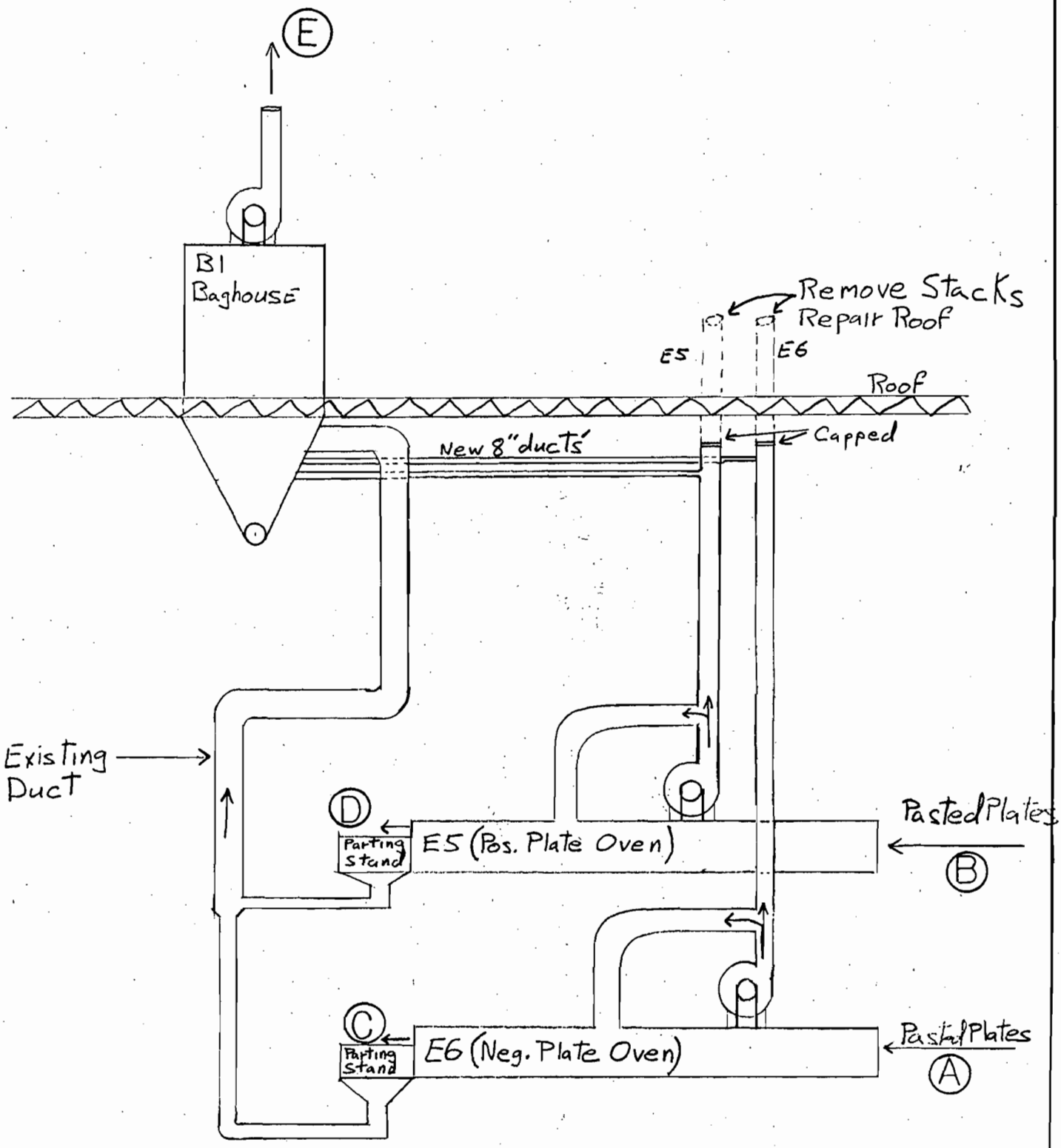
GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA	
GNB INCORPORATED ORLANDO FLORIDA	
DES. ~~ DWN. ~	115-7-2
SCALE NONE DATE 7/85	DRAWING NO.



FLOW DIAGRAM

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
G.N.B. INCORPORATED ORLANDO, FLORIDA		
DES. N/A	DWN. RC	115-7-9
SCALE NTS	DATE 6-11-86	DRAWING NO.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

RECEIVED
FEB 24 1986
SEABURY BOTTORF ASSOCIATES INC.

Donald W. Groff
Manager of Facilities Engineering
GNB Incorporated
P.O. Box 64140
St. Paul, MN 55164

Dear Mr. Groff::

Orange County - AP
Three Baghouses for: #B1, System No.1, Pasting Operations
#B2, System No.3, Battery Assembly and
#B5, System No.4, Maintenance Free Battery Assembly

Enclosed is Permit Number A048-112909, dated FEB 20 1986, to operate three Baghouses, issued pursuant to Section 403.087, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee 32301, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order 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 32301; 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 the Final Order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

cmc

A. Alexander, P.E.
District Manager
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803
(305) 894-7555

AA
AA:ATS::jtm

Copies furnished to:

Seabury-Bottorf Associates, Inc.
John Bateman

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on FEB 20 1986 to the listed persons.

M. Jaramillo

Clerk Stamp

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.

FEB 20 1986

Clerk

Date

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

Permittee:
Donald W. Groff
Manager of Facilities Eng.
GNB Incorporated
P.O. BOx 64140
St.Paul, MN 55164

I. D. Number:
Permit/Certification
Number: AO48-112909
Date of Issue 02/20/86
Expiration Date: 02/17/91
County: Orange
Latitude/Longitude:
28°23'58"N/81°24'02"W
UTM: 17-460.3 KmE
UTM: 3142.3 KmN
Project: Three Baghouses for: #B1,System No.1, Pasting Operations; #2, System No.3, Battery Assembly and #B5, System No.4, Maintenance Free Battery Assembly

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

The permittee can operate the following emisssions point sources:

(1) #B1, System No.1, Pasting Operations Area utilizing a Baghouse (Carborundum Model 288CT-2) with a particulate collection efficiency of 99.5 percent.

(2) #B2, System No.3, Battery Assembly Operations Area utilizing a Baghouse (Carborundum Model 288CT-2) with a particulate collection efficiency of 99.5 percent.

B5 (3) #3, System No.4, Maintenance Free Battery Assembly Operations Area utilizing a Baghouse (Carborundum Model 288CT-2) with a particulate collection efficiency of 99.5 percent.

These sources are located at the GNB facility at 11331 Sattelite Blvd. Orlando, Orange County, Florida

Permittee:
Donald W. Groff
Manager of Facilities Eng.
GNB Incorporated

I. D. Number:
Permit/Certification
Number: A048-112909
Date of Issue:
Expiration Date: 02/17/91

SPECIFIC CONDITIONS:

1. No objectionable odors will be allowed, as per Rule 17-2.620(2), F.A.C.

2. There shall be no discharges of liquid effluents or contaminated runoff to surface or groundwater without prior approval from this office.

3. All unconfined emissions of particulate matter generated at this site shall be adequately controlled. (Rule 17-2.610(3), F.A.C.)
Area must be watered down should unconfined emissions occur.

4. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

5. The maximum permitted process rates, lead emission limits, and hours of operation of these sources are as follows:

Source Name	Process Rates (lbs/hr.product)	Emission Limits lbs/hours)	Hours of hrs/yr)
1. #B1,System No.1, Pasting Operations Area	8000	0.1950	4000
2. #B2,System No.3, Battery Assembly Operations Area	1200	0.2188	4000
3. #B5,System No.4, Maintenance-Free Battery Assembly Operations Area	6800	0.4902	4000

6. This source must be tested annually from the date of March 15,1986 by EPA Methods Nos.1,2,4,12 and 9, in accordance with 40 CFR 60.370 Subpart KK, revised November 15, 1985, page 45605.

Permittee:I. D. Number:
Donald W. Groff
Manager of Facilities Eng.
GNB Incorporated

Permit/Certification
Number: A048-112909
Date of Issue:
Expiration Date: 02/17/91

SPECIFIC CONDITIONS:

7. Orange County Environmental Protection Department, Air Permitting, Orlando, shall be notified at least ten (10) days in advance of the compliance tests so that we can witness them.

8. These sources are required to operate within 10 percent of permitted capacity during the compliance tests.

9. Submit for this facility, each calendar year, on or before March 1, an Annual Operations Report for the preceding calendar year as per Rule 17-4.14, F.A.C. [DER Form 17-1.202(6)].

10. All visible emission testing must be in accordance with Rules 17.2.700(1)(d)1.b. and shall not exceed 5 percent opacity.

11. The required test report shall be filed with Orange County Environmental Protection Department as soon as practical but no later than 45 days after the last test is completed.

12. This source must be tested for visible emissions at least ninety (90) days prior to permit expiration date.

13. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

ISSUED FEB 20 1986

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

cmc

A. Alexander, P.E.
District Manager
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803
(305) 894-7555

GNB INCORPORATED, ORLANDO, FLORIDA

EMISSION STANDARDS WITH IMPACTS TO THE NAAQS

BASED ON MODELING DATA FROM THE FLORIDA LEAD SIP

SOURCE	SIP IMPACT ug/m^3	TRUE IMPACT (BASED ON TEST DATA) ug/m^3	IMPACT BASED ON CURRENT EMISSION STANDARD ug/m^3	CURRENT EMISSION STANDARD WITH B1, E5 & E6 DUCTED TO B1 BAGHOUSE Lbs./Hr.	IMPACT BASED ON CURRENT EMISSION STANDARD WITH B1,E5 & E6 ADDED TOGETHER & EXHAUSTING THROUGH THE B1 BAGHOUSE ug/m^3
B1	.0358	$.0358 \times \frac{.0063}{.041} = .0055$	$.0358 \times \frac{.195}{.041} = .1703$	B1 + E5 + E6 = Total Allowable .195 + .0048 + .0048 = .2046	$.0358 \times \frac{.2046}{.041} = .1786$
B2	.0359	$.0359 \times \frac{.0056}{.046} = .0044$	$.0359 \times \frac{.2188}{.046} = .1708$	.2188*	.1708*
B3	.0445	$.0445 \times \frac{.0035}{.038} = .0041$	$.0445 \times \frac{.1808}{.038} = .2117$	.1808*	.2117*
B4	.0542	$.0542 \times \frac{.0332}{.063} = .0286$	$.0542 \times \frac{.2998}{.063} = .2579$	.2998*	.2579*
B5	.0355	$.0355 \times \frac{.0129}{.103} = .0044$	$.0355 \times \frac{.4902}{.103} = .1689$	.4902*	.1689*
B6	.0048	$.0048 \times \frac{.0042}{.003} = .0067$	$.0048 \times \frac{.0142}{.003} = .0227$	.0142*	.0227*
B7	.0077	$.0077 \times \frac{.0001}{.002} = .0004$	$.0077 \times \frac{.0096}{.002} = .0370$	.0096*	.0370*
E1	.0273	$.0273 \times \frac{.0194}{.025} = .0212$	$.0273 \times \frac{.119}{.025} = .1299$	.1190*	.1299*
E 2 & 3	.0140	$.0140 \times \frac{.0056}{.004} = .0196$	$.0140 \times \frac{.0192}{.004} = .0672$	:0192*	.0672*
E4	.0268	$.0268 \times \frac{.0155}{.026} = .0160$	$.0268 \times \frac{.1238}{.026} = .1276$	.1238*	.1276*
E5	.0032	$.0032 \times \frac{.0107}{.001} = .0342$	$.0032 \times \frac{.0048}{.001} = .0154$	Eliminate Point Source	No impact
E6	.0038	$.0038 \times \frac{.0143}{.001} = .0543$	$.0038 \times \frac{.0048}{.001} = .0182$	Eliminate Point Source	No impact
Reintrainment	.02	.02	.02		.02
Background	.10	.10	.10		.10
TOTAL	0.4135	.3196	1.5176	1.68	1.4923

*No change

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT

3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

APPLICATION TO OPERATE/~~CONSTRUCT~~ AIR POLLUTION SOURCES

SOURCE TYPE GNB ID #B1 - Two Plate Paste Drying @vens & Two Plate Parting Stands [ ] New[1] [X] Existing[1]

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

COMPANY NAME GNB Incorporated COUNTY: Orange

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) Plate Drying & Parting Operation with Baghouse

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81 ° 24 ' 02 "W

APPLICANT NAME AND TITLE: Donald W. Groff, Manager of Facilities Engineering

APPLICANT ADDRESS: P. O. Box 64140, St. Paul, MN 55164

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

I certify that the statements made in this application for an operation 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: Donald W Groff

Donald W. Groff, Manager Facilities Engineering
Name and Title (Please Type)

Date: 6-23-86 Telephone No. 612/681-5128

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

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

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

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

Signed _____

John W. Bottorf, Jr.

Name (Please Type)

Seabury-Bottorf Associates, Inc.

Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057

Mailing Address (Please Type)

Florida Registration No. 13089 Date: 6/26/86 Telephone No. 305/298-0846

SECTION II: GENERAL PROJECT INFORMATION

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

This is a request to modify Permit #AO 48-112909 to allow the ducting of exhaust from Stack E5 (Positive Plate Paste Drying Oven) and Stack E6 (Negative Plate Paste Drying Oven) to the B1 Baghouse manufactured by Carborundum, Model #288CT-2 that has a removal efficiency of 99.5%.

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

Start of Construction After Permit issuance Completion of Construction 3 months after start

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.)

Baghouse	$32,500.00
Ductwork Charge	6,000.00

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

AO 48-112909 issued 2/20/86 expires 2/17/91 (copy enclosed)

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 5 ; wks/yr 52 ;

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

F. If this is a new source or major modification, answer the following queations. (Yes or No) N/A

1. Is this source in a non-attainment area for s particular pollutant? _____

   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 eource? If yes, see Section VI. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutsnts" (NESHAP) apply to this source? _____

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

   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 muat be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
(Neg.Plate Oven) Lead Grids w/Paste	Pb	100	3056.4	(A)
(Pos.Plate Oven) Lead Grids w/Paste	Pb	100	3056.4	(B)
(Neg.Parting Stands) Finished Plates	Pb	100	3056.4	(C)
(Pos. Parting Stand) Finished Plates	Pb	100	3056.4	(D)

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

1. Total Process Input Rate (lbs/hr): 6112.8 (Two Ovens)

2. Product Weight (lbs/hr): 6112.8

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr *	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead (Pb)	0.0064	0.0133	SIP	0.2046	5011	2.67	(E)

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

*Total Allowable = B1 + E5 + E6
= .195 + .0048 + .0048
= .2046 lbs./hr.

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)
Baghouse Carborundum Model 288CT-2	Pb	99.5	<1 and larger	Manufacturer's Rating

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Pos. Plate Drying Oven Natural Gas	206.9	243.4	0.25
Neg. Plate Drying Oven Natural Gas	206.9	243.4	0.25

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

Fuel Analysis:

Percent Sulfur: <0.01% Percent Ash: <0.01%

Density: 0.044 lb./CF lbs/gal Typical Percent Nitrogen: .49%

Heat Capacity: 1027 BTU/CF BTU/lb N/A 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):

Stack Height: 52 ft. Stack Diameter: 2.5 x 2.5 ft.

Gas Flow Rate: 15,950 ACFM 15,190 DSCFM Gas Exit Temperature: 96.5 °F.

Water Vapor Content: 1.8 % Velocity: 42.53 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer_____

Date Constructed _____ Model No. _____

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

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

Gas Flow Rate: _____ACFM _____ DSCFM* Velocity: _____FPS

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

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

[ ] Other (specify)_____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

D. Describe the exiating control and treatment technology (if sny).

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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 deacription.

2. _____ Modified? If yes, attach deacription.

3. _____ Modified? If yes, attach deacription.

4. _____ Modified? If yes, attach deacription.

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.

GNB Incorporated

ADDENDUM TO SECTION II,A.

This Application is being submitted to replace the construction applications submitted for the two Plate Paste Drying Ovens, each an Auto MAC 24 Oven (Stacks E5 and E6). Currently B1 Baghouse manufactured by Carborundum, Model 288CT-2 controls Pb emissions from the two plate parting stands only. This Baghouse is a roof mounted, shaker type unit with 5 inch diameter x 14 Ft. long polyester sateen bags to give a total cloth area of 5400 Sq.Ft. Currently it handles 12,830 ACFM with an air to cloth ratio of 2.38:1. When Stacks E5 and E6 are connected to this Baghouse, it will handle 15,950 ACFM with an air to cloth ratio of 2.95:1. This project should result in full compliance with both source and ambient emission standards. The attached table shows the true impact to the NAAQS, the impact based on the current emission standards with E5 & E6 having separate stacks and the impact based on the current emission standard combining B1, E5 & E6 and being exhausted through the B1 Baghouse. NOTE: The hood that controls possible dust from the wet paste application machine is ducted to Stack E4, not Baghouse B1, as originally believed. The dust loading from this pasting machine is very low due to the high moisture content of the paste.

GNB Incorporated

INPUT RATE/PRODUCT WEIGHT

Negative Plate Paste Drying Oven (MAC 24)

10,800 plates/hr. (max.) x 0.283 lbs./plate (dry) = 3056.4 lbs./hr.

Positive Plate Paste Drying Oven (MAC 24)

10,800 plates/hr. (max.) x 0.283 lbs./plate (dry) = 3056.4 lbs./hr.

TOTAL Input/Product Rate (Two Ovens) = 6112.8 lbs./hr.

Two Plate Parting Stands (B1) - Already Permitted -

The input rate/product weight is equal to the rate of the plate drying ovens. This rate is 6,112.8 lbs./hr. or 3054.6 lbs./hr./parting stand.

GNB Incorporated

POTENTIAL (UNCONTROLLED) Pb EMISSIONS

POTENTIAL

$$\text{B1 (Pasting/Parting)} = \frac{\text{Actual Emissions (Test Data)}}{1 - \text{Efficiency}}$$

$$= \frac{.0063}{1 - .995} = 1.26 \text{ lbs./hr.}$$

E5 (Positive Plate Paste Oven) = 0.0107 lbs./hr. (Test Data)

E6 (Negative Plate Paste Oven) = 0.0143 lbs./hr. (Test Data)

Total = 1.285 lbs./hr.

$$X \frac{4160 \text{ hrs./yr.}}{2000 \text{ lbs./ton}} = 2.67 \text{ Tons/Yr.}$$

ACTUAL Pb EMISSIONS

Actual = Potential (1 - efficiency)

Actual = 1.285 lbs./hr. (1 - .995) = 0.0064 lbs./hr.

$$X \frac{4160 \text{ hrs./yr.}}{2000 \text{ lbs./ton}} = 0.0133 \text{ Tons/Yr.}$$

Emission Calculations are based on EPA Method 12 Stack Tests and a 99.5% control efficiency.

Dry up to 180 pasted automotive panels per minute – SAVES you fuel.

The autoMAC oven features an energy saving combination of gas infrared and convection heating for surface drying automotive size pasted panels at speeds adjustable from 80 to 180 panels per minute. AutoMAC series of ovens is available in a 24 or 34 foot (7,315 or 10,363 mm) length. Each is designed to handle thin plates made from regular, low, or non-antimony grids.

- **ENERGY-EFFICIENT – Combination infra-red and convection heating.**

The autoMAC oven series features a production proven two zone oven construction. A downdraft ventilating system recycles heat from the infra-red-heated zone and reuses it in a convection-heated zone. The system provides complete evacuation of gases and helps prevent escape of heat–saving you energy. Additional fuel savings are generated by the automatic temperature control (standard) which keeps oven temperature constant under load or no-load conditions. Heavily fiberglass insulated lay-on access doors also help retain heat.

- **FLEXIBLE – range of speeds, BTU input.**

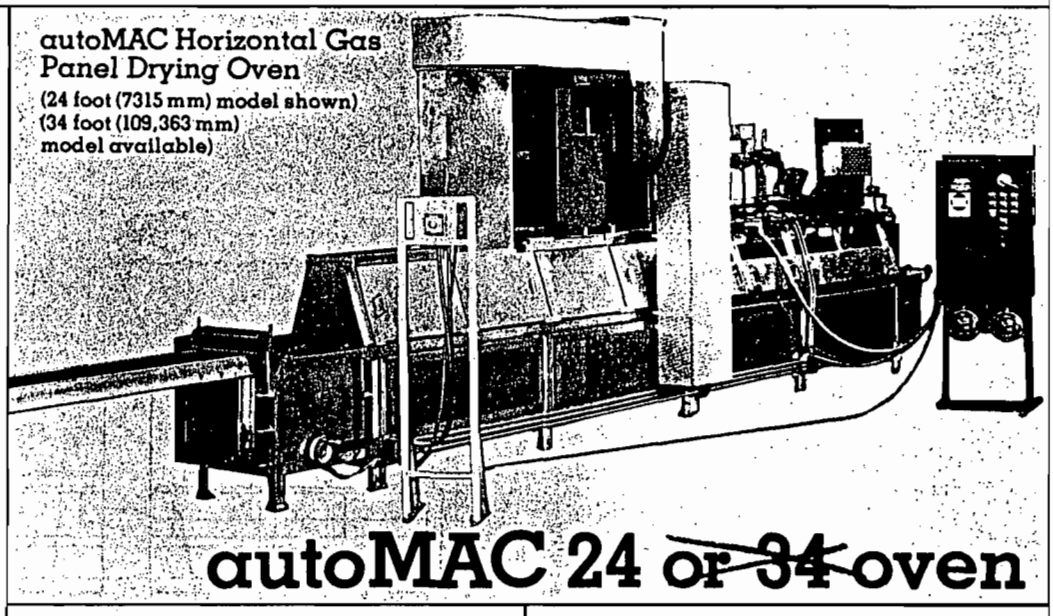
AutoMAC is available as a 24 or 34 foot (7,315 or 10,363 mm) oven, each unit having built-in 2 foot (610 mm) incoming and outlet conveyors. Each model is half infra-red heated zone and half convection-heated zone, allowing the 34 foot model to provide the same quality drying at lower operating temperatures. A 1 h.p. electric motor with a gear-reducer drive controls oven speeds, from 80 to 180 plates per minute. The firing rate is infinitely variable from 100,000 to 700,000 BTU's per hour for the model 24. The model 34 is variable from 100,000 to 1,050,000 BTU's per hour. For safety, autoMAC ovens have an automatic spark ignition. Lower drying temperatures mean gas energy savings, lower thermal shock for plates at oven exit, extended oven life and less day-to-day maintenance.

- **EASY TO OPERATE – one operator, simple controls, uncomplicated design.**

A single operator can handle the operation because controls are simple. For your production flexibility, operator controls can be built into either the left or right side of the oven (when facing the incoming conveyor). Horizontal plate handling minimizes plate damage and reduces pelleting. The little debris that drops hits the slanted oven floor and is directed to the four, easily accessible debris clean-out doors (six on 34-foot model). Low ambient temperatures keep operator comfortable, protect equipment and allow mounting of blowers, burners and controls above oven, out of the dirt and hazards of floor mounting.

- **EASY UNLOADING**

A 10-foot (3048 mm) horizontal off-bearing conveyor using four block chains provides for horizontal shingle stacking and unloading. A 1 h.p. motor drives the belt oven conveyor and the 4-chain off-bearing conveyor.



autoMAC Horizontal Gas Panel Drying Oven
(24 foot (7315 mm) model shown)
(34 foot (109,363 mm) model available)

autoMAC 24 ~~or 34~~ oven

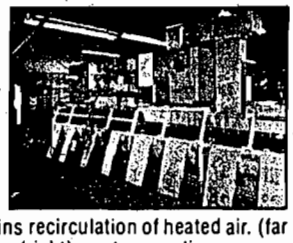
- **SAFETY FEATURES – electrical and combustion controls include safety and product protection.**

Failure of any important components to operate properly automatically interrupts fuel gas supply, resulting in burner shutoff. Main electric control panel is mounted on a separate stand to reduce potential harm to components from heat or vibration. Automatic temperature controller is on a separate stand near oven outlet.

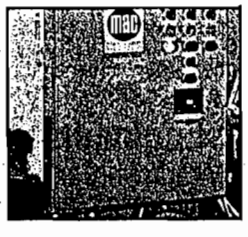
- **QUALITY PRODUCT – top results with soft-metal grids.**

Even thin, low-and non-antimony grids are positively conveyed through the drier. Free-floating belt conveyor support rails keep plates flat and even for proper surface drying. Rails are free to expand so they will not warp (which could cause a production interruption), and can be lifted out in five-foot (1524 mm) sections.

Infra-red Zone/Convection Zone saves energy by using heat to its fullest.

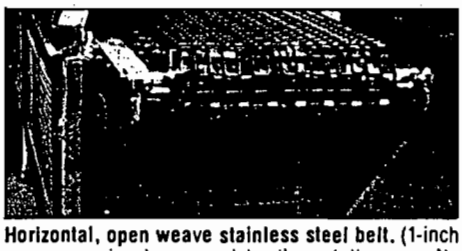


Infra-red zone (left) has two rows of burners mounted above the oven conveyor so dust and dirt does not clog them. A 1½ H.P. combustion-air blower sets up downdraft and begins recirculation of heated air. (far left). A 7½ H.P. blower (right) creates negative pressure in the infrared zone to draw the heat to the convection zone (at right) and provide positive exhaust of gas and fumes. (photo shows eight access doors removed from one side– 34 foot (10,363 mm) model has 12 removable doors on each side). The autoMAC ovens operate with either natural or LP gases.



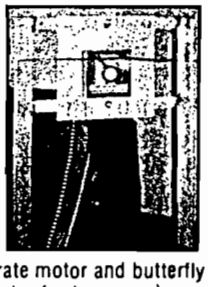
Free standing control panel may be mounted remotely or near oven. Simple controls are grouped for easy operation.

Lay-on, removable access doors have two inches of high-temperature fiberglass insulation completely enclosed in steel. Operator can get into any section of the furnace quickly and easily. (Photo shows last burner in infra-red zone and beginning of convection zone.)



Horizontal, open weave stainless steel belt. (1-inch square openings) moves plates through the oven. No vertical hanging to bend softer, low antimony or calcium lead alloy grids. Open weave provides more even drying (33% better air flow below plates) and eliminates chain burn.

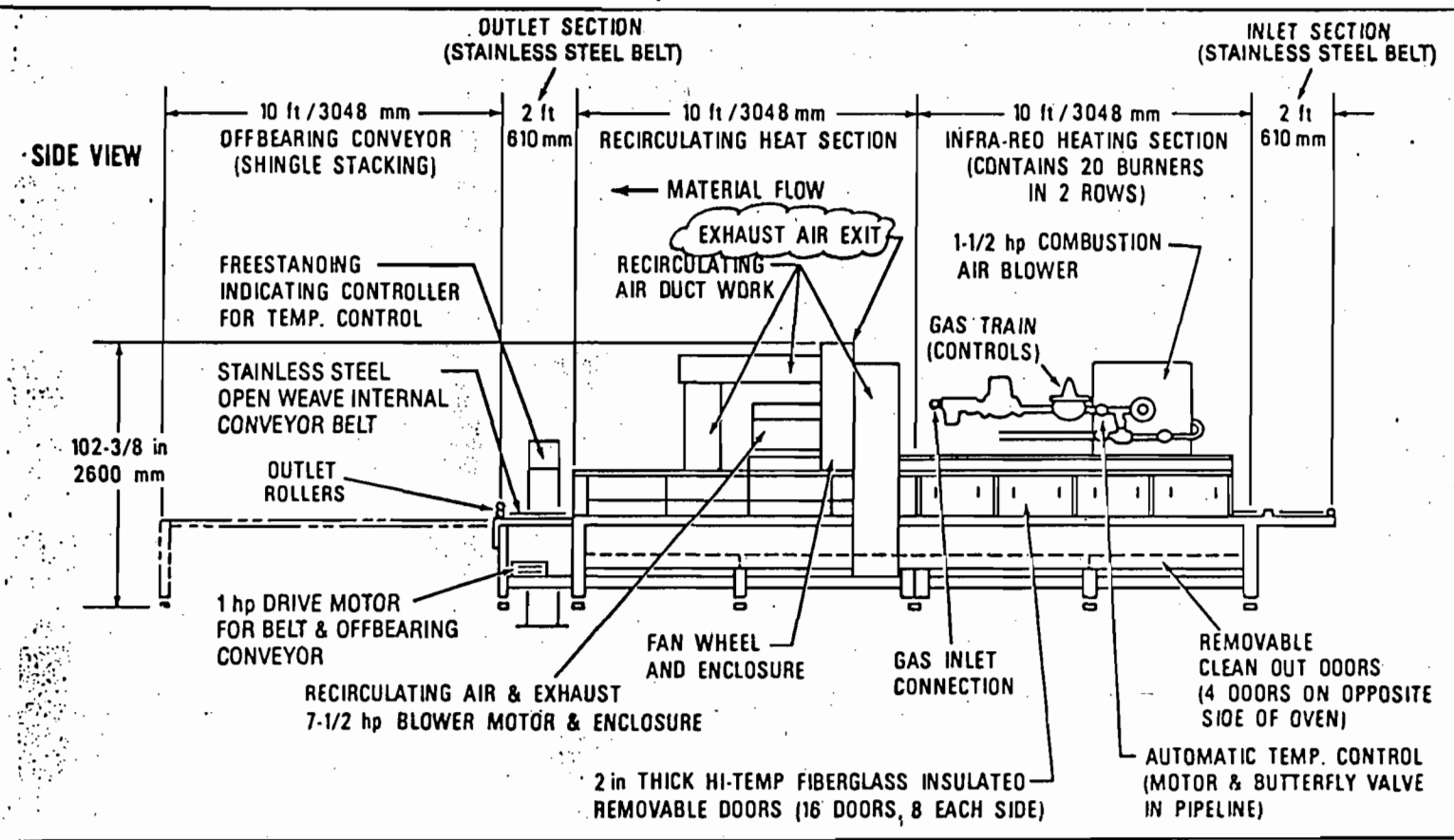
Automatic Temperature Control saves fuel.



Temperature control maintains more economical oven temperature. Controller maintains constant oven temperature under "load" or "no-load" conditions saving energy and providing an established temperature even when plate flow interruptions occur. Standard, single-point firing rate control operates a separate motor and butterfly valve in the pipeline. Manometer (water gauge) provides a separate indication of firing rate.

Slanted oven floor gives easy clean-out. Oven floor is severely slanted to direct pelleting and debris to the four easily accessible clean-out doors. (six on 34-foot model).

TECHNICAL DATA
autoMAC 24 or ~~34~~ Ovens



Horizontal Gas Drying Ovens for Automotive Panels

Required User Data:

- specify 24 or 34 autoMAC
- specify gas type and supply pressure.
- specify right or left hand operator control location (when facing the incoming conveyor).
- specify electrical requirement.

Foundation:

Standard 4-inch (102 mm) thick reinforced concrete floor or pad. Holes for lag bolting to floor are provided.

Production Capabilities:

Panel width — From 6 to 18 inches (152.4 to 457 mm)

80 to 180 pasted panels/minute.

Operating temperature range: 250 to 900°F. (120 to 480°C.)

24-foot (7315 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 300° to 400°F. (148° to 204°C.)

exit temperature 120°F. (49°C.)

34-foot (10,363 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 250° to 280°F. (121° to 138°C.)

exit temperature 110°F. (43°C.)

Average Ambient Temperature: 100°F. one foot from oven (room at 70°F., oven at 400°F.)

Operation Requirements:

Personnel	One, semi-skilled
Standard Electrical	230/460 V., 3-Phase, 60 Hz. 9.3 KW
Electric Motors	1 HP, 1800 RPM @ 60 Hz., 143 T frame, TEFC 7½ HP, 1800 RPM @ 60 Hz., 213 T frame, TEFC 1½ HP, blower motor (integral)
Typical Electrical Consumption (at rated capacity)	7.5 KW/Hr. @ 230 V. or 460 V.
Fuel Requirements (Standard)	Natural Gas – 600 cu. ft. per hr. @ 6" W.C. (17 cu. meters per hr. @ 152 mm W.C.)

autoMAC ovens operate with either natural or LP gases on a gas supply pressure range of .22 psi (6 inch W.C.) to 1 psi (28 inch W.C.).

Typical Fuel Consumption (at rated capacity)	250 cu. ft. per hr. @ 250,000 BTU/Hr. (7.1 cu. meters/hr. @ 250,000 BTU/Hr.)
Hydraulics	None
Water	None
Compressed Air	None
Ventilation	Blower provided in oven, customer provides exhaust to roof. Slight negative pressure in oven due to 4000 C.F.M. recirculating blower. Approximately 2500 C.F.M. with 1500 C.F.M. exhausting.
Flue Discharge	Water vapor and products of complete combustion approximately 1500 C.F.M.

Approximate Unit Specifications:

Uncrated data autoMAC 24 / autoMAC 34

Length: 408/528 inches (10,363/13,411 mm); Width: 54/54 inches (1372/1372 mm); Height: 85/85 inches (2159/2159 mm); Weight: 5500/7000 pounds (2500/3175 kg).

Crated data autoMAC 24

Crate A: 168L x 42W x 92H inches (4267L x 1067W x 2337H mm); Crate B: 168L x 37W x 61H inches (4267L x 940W x 1549H mm); Crate C: 144L x 37W x 46H inches (3658L x 940W x 1168H mm; Crated weight: 6500 pounds (2948kg).

Crated data autoMAC 34

Crate A: 193L x 43W x 86H inches (4902L x 1092W x 2184H mm); Crate B: 133L x 47W x 58H inches (3378L x 1194W x 1473H mm); Crate C: 170L x 38W x 59H inches (4318L x 965W x 1499H mm); Crate D: 145L x 42W x 46H inches (3683L x 1067W x 1168H mm); Crated weight: 7900 pounds (3583 kg).

MAC Engineering and Equipment Company, Inc.
2775 Meadowbrook Road, Benton Harbor, Michigan 49022 U.S.A.
Telephone: (616) 925-3295 Telex: 729448 Cable: MACQUIP

Printed in U.S.A.

data mac

CIRCULATE TO _____

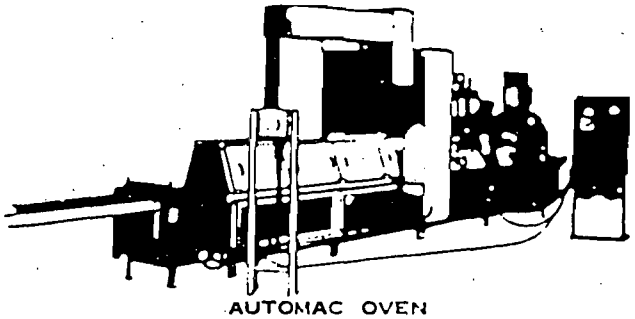
MAC Engineering and Equipment Company, Inc. 2775 Meadowbrook Road. Benton Harbor. Michigan 49022 U.S.A. Telephone (616) 925-3295 Telex 729443 Cable MACQUIP

DECEMBER 18, 1984

OVERDRYING CAN DAMAGE PLATES AND WASTE FUEL

OVERDRYING YOUR PLATES ROBS YOUR BATTERIES OF FULL PERFORMANCE. WASTING FUEL IS A COSTLY EXPENSE.

MOST BATTERY MANUFACTURERS AGREE, PROPER PLATE DRYING IMMEDIATELY FOLLOWING PASTING SHOULD ONLY BE SKIN OR SURFACE DRYING TO PREVENT STACKED PLATES FROM STICKING TOGETHER DURING CURING/HYDROSETTING. OTHER-OVENS THAT OVER-EXPOSE YOUR PASTED PANEL TO TOO MUCH HEAT CAN PREVENT PROPER CURING AND BE A CAUSE OF PASTE PELLET FALLOUT

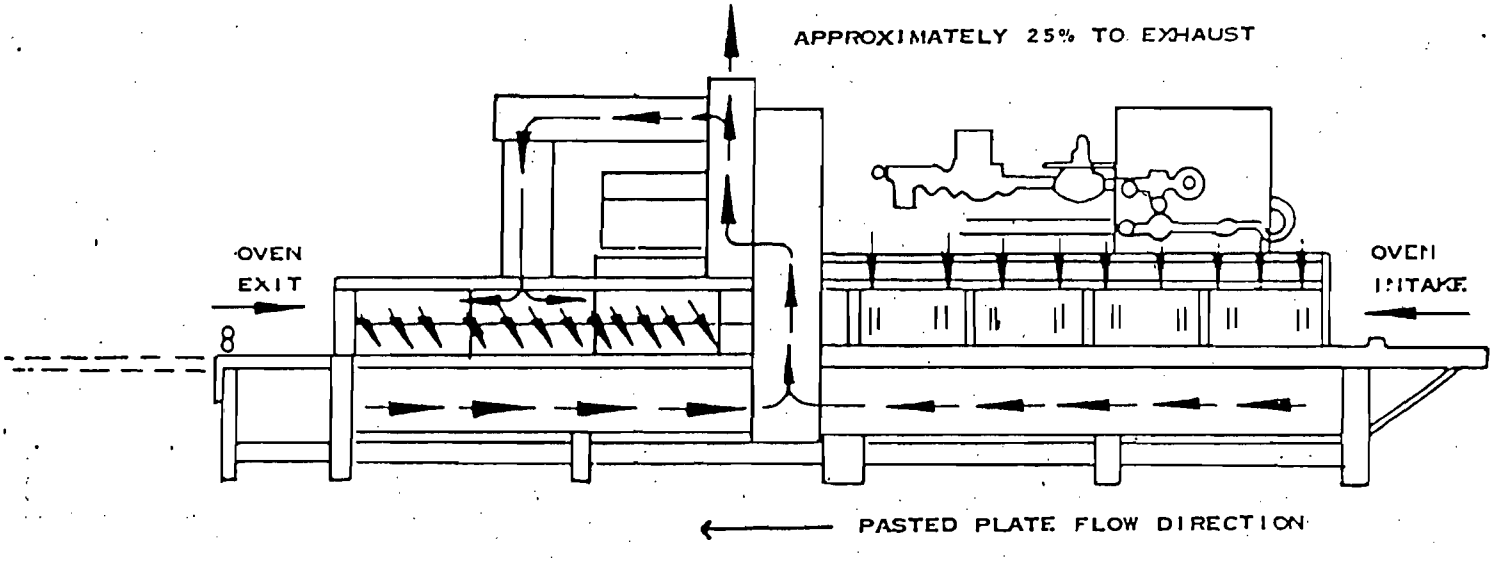


AUTOMAC OVEN

- MAC - ENERGY EFFICIENT DRYING

MAC IS A LEADER IN PRODUCING ENERGY EFFICIENT OVENS DESIGNED TO SURFACE FLASH DRY YOUR PLATES.

ALL MAC OVENS FEATURE A FUEL SAVING TWO-ZONE DESIGN. THE FIRST ZONE USES EITHER GAS OR ELECTRIC INFRA-RED HEAT, BUT YOU DON'T EXHAUST THAT HEATED AIR. YOU RE-USE IT IN THE SECOND OVEN ZONE. THE DIAGRAM ILLUSTRATES THE AIR FLOW IN ALL MAC OVENS



RE-USING THE HEATED AIR FROM THE FIRST ZONE AGAIN IN THE SECOND ZONE IS THE LOW TEMPERATURE, ENERGY SAVINGS SECRET. THE ALREADY HEATED AIR FROM THE FIRST ZONE IS SWIRLED AROUND YOUR PASTED PLATES IN THE SECOND MAC OVEN ZONE. THE TOTAL COMBINATION OF INFRARED HEAT, RE-USED HOT AIR, AND FAST MOVING AIR RESULTS IN UP TO 50% ENERGY SAVINGS COMPARED TO OTHER-OVENS - AND IF THAT OTHER-OVEN OVERDRIES YOUR PLATES, YOUR BATTERY'S PERFORMANCE CAN SUFFER

- MAC - LOWER DRYING TEMPERATURES

MAC OVENS USE LOWER DRYING TEMPERATURES TO AVOID POTENTIAL OVERDRYING. THE CHART SUMMARIZES REPORTS FROM USERS OF THE AUTOMAC 24 OVEN, WHICH USES EITHER NATURAL OR PROPANE GAS TO GENERATE THE INFRARED HEAT.

PASTER AND OVEN SPEED (PANELS/MINUTE)	PLATE DATA (146MM WIDE X 121 MM HIGH) THICKNESS INCH/MM	WEIGHT IN GRAMS	TYPICAL MOISTURE PERCENT ENTERING OVEN	PERCENT EXITING OVEN	TYPICAL OVEN TEMPERATURES (DEGREES IN CENTIGRADE) PASTE FROM BALL MILL OXIDE	PASTE FROM BARTON OXIDE
160	.047/1.2	90 GR	12 - 13 %	8 - 9 %	370 - 400 °C	310 - 340 °C
80	.047/1.2	90	12 - 13	8 - 9	290 - 320	230 - 260
160	.083/2.1	125	12 - 13	8 - 9	450 - 480	390 - 420
80	.083/2.1	125	12 - 13	8 - 9	370 - 400	310 - 340

(ABOVE DATA SUMMARIZED FROM INDUSTRY REPORTS FOR INFORMATION ONLY. INDIVIDUAL CASES MAY VARY.)

- MAC OVENS - FEATURES AND MORE FEATURES

AT SPEEDS UP TO 180 AUTOMOTIVE PANELS PER MINUTE FOR AUTOMAC OVENS AND NEARLY 40 FEET PER MINUTE FOR INDUSTROMAC OVENS, YOUR MAC OVEN SURFACE DRYS PASTED PANELS IN A HORIZONTAL POSITION TO MINIMIZE PLATE DAMAGE AND PELLETING. COMPARE THESE ADDITIONAL FEATURES:

- LOWER DRYING TEMPERATURES - AVOIDS PLATE OVERDRYING AND SAVES FUEL. REDUCES THERMAL SHOCK AS PLATES EXIT OVEN, AND KEEPS YOUR PLANT COOLER.

- AUTOMATIC TEMPERATURE CONTROL AVAILABLE - MAINTAINS CONSTANT OVEN TEMPERATURE UNDER LOAD AND NO-LOAD CONDITIONS.

- OPEN-WEAVE STAINLESS STEEL BELT IN THE OVEN - THIN AND SOFT GRID PLATES REST IN A NON-DAMAGING HORIZONTAL POSITION DURING DRYING. BELT PROMOTES MORE EVEN DRYING, BEST PLATE SUPPORT, NO PLATE DROPPING, AND NO CHAIN BURN ON YOUR PLATES. NO COSTLY AND FREQUENT CHAIN REPLACEMENT. YOUR OPEN-WEAVE STAINLESS STEEL BELT LASTS AND LASTS - YEARS LONGER THAN CHAINS.

- INFINITELY VARIABLE FIRING RATE - 100,000 TO 700,000 BTU'S ON THE AUTOMAC 24 OVEN OR 200,000 TO 1,200,000 BTU'S ON THE INDUSTROMAC 300 OVEN. TYPICALLY, MAC OVENS OPERATE AT ONLY 25% TO 40% OF THEIR RATED MAXIMUM. OTHER-OVENS LIST THEIR TYPICAL OPERATING RANGE AS 60% TO 70% OF THEIR 1,200,000 BTU MAXIMUM. THIS MEANS MAC COULD PROVIDE OVER A 50% DAILY ENERGY SAVINGS FOR YOU.

- AIR EXHAUST WORKTABLE OPTION - CONVENIENT DUST AND DEBRIS COLLECTING WORK STATION AROUND YOUR OFFBEARING CONVEYOR. YOU HAVE A CLEANER PLANT ENVIRONMENT.

WHICHEVER MAC AUTOMOTIVE OR INDUSTRIAL OVEN BEST FITS YOUR NEEDS, MAC QUALITY AND PERFORMANCE IS THERE. IN OVER 50 COUNTRIES AROUND THE WORLD, MAC EQUIPMENT IS SAVING BATTERY MANUFACTURERS MONEY.

MAY WE SEND YOU FURTHER DESCRIPTIVE LITERATURE PLUS A PRICE AND DELIVERY QUOTATION TODAY?

Donald C. Melnik

DONALD C. MELNIK
VICE PRESIDENT MARKETING

P.S. EVERY MAC OVEN FEATURES 40 DEGREE ANGLED VENTING IN THE SECOND ZONE DUCTWORK. THIS DIRECTS THE RECIRCULATED AIR BACK TO THE OVEN'S CENTER. THE RESULT IS FASTER MOVING HOT AIR ACROSS THE PANEL SURFACES TO IMPROVE YOUR PLATE DRYING. ALSO, POTENTIAL LEAD-IN-AIR AT THE OVEN EXIT IS REDUCED SINCE THE AIR IS RETAINED IN YOUR OVEN.

The CT-2 Welded Module Dust Collector

Factory assembled, the CT-2 welded module dust collector offers a tested, air-tight seal at all joints and seams. Two basic units are available: 264 and 288 bags, each 14 feet in length.

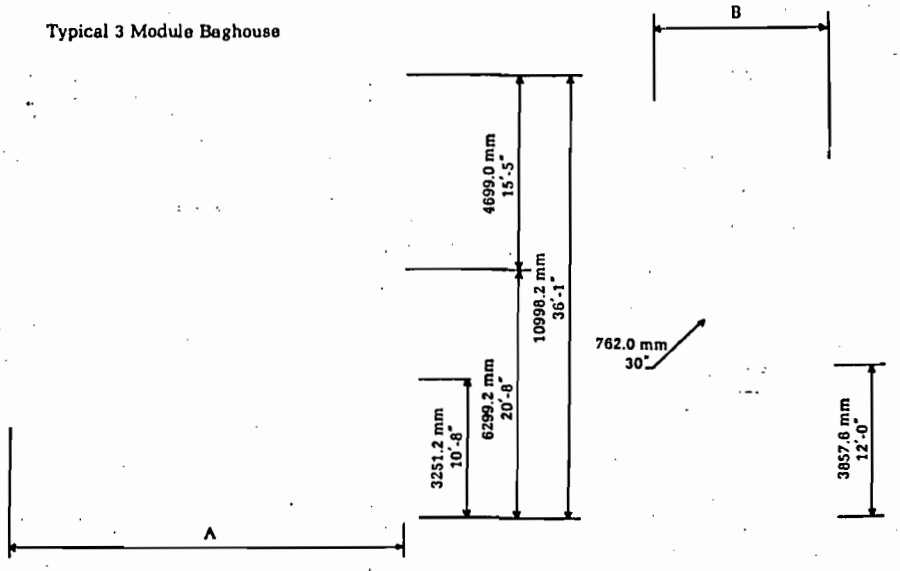
The unit features an all-welded casing and hopper of 10 gauge steel designed to withstand required static pressure. It is available in single units that can be grouped and operated as a multiple unit dust collector. For continuous operation, one of the units is closed off by a damper and shaker action takes place while other individual units continue operation. This tandem set-up can mean continuous operation and increased capacity.

Suction or pressure operations are possible. The inlet is located at the hopper; the outlet at the top of the collector. An optional upper and lower access platform permits inspection of the shaker mechanism and access to the collector interior. An access platform inside the casing permits bag inspection and replacement.

Each unit has a 3HP, 1800 RPM motor, standard . . . in the heavy construction of the shaker mechanism.

Installation can be quickly and simply accomplished by a maintenance or building crew. A detailed, step-by-step manual is provided with every CT-2 unit.

Typical 3 Module Baghouse

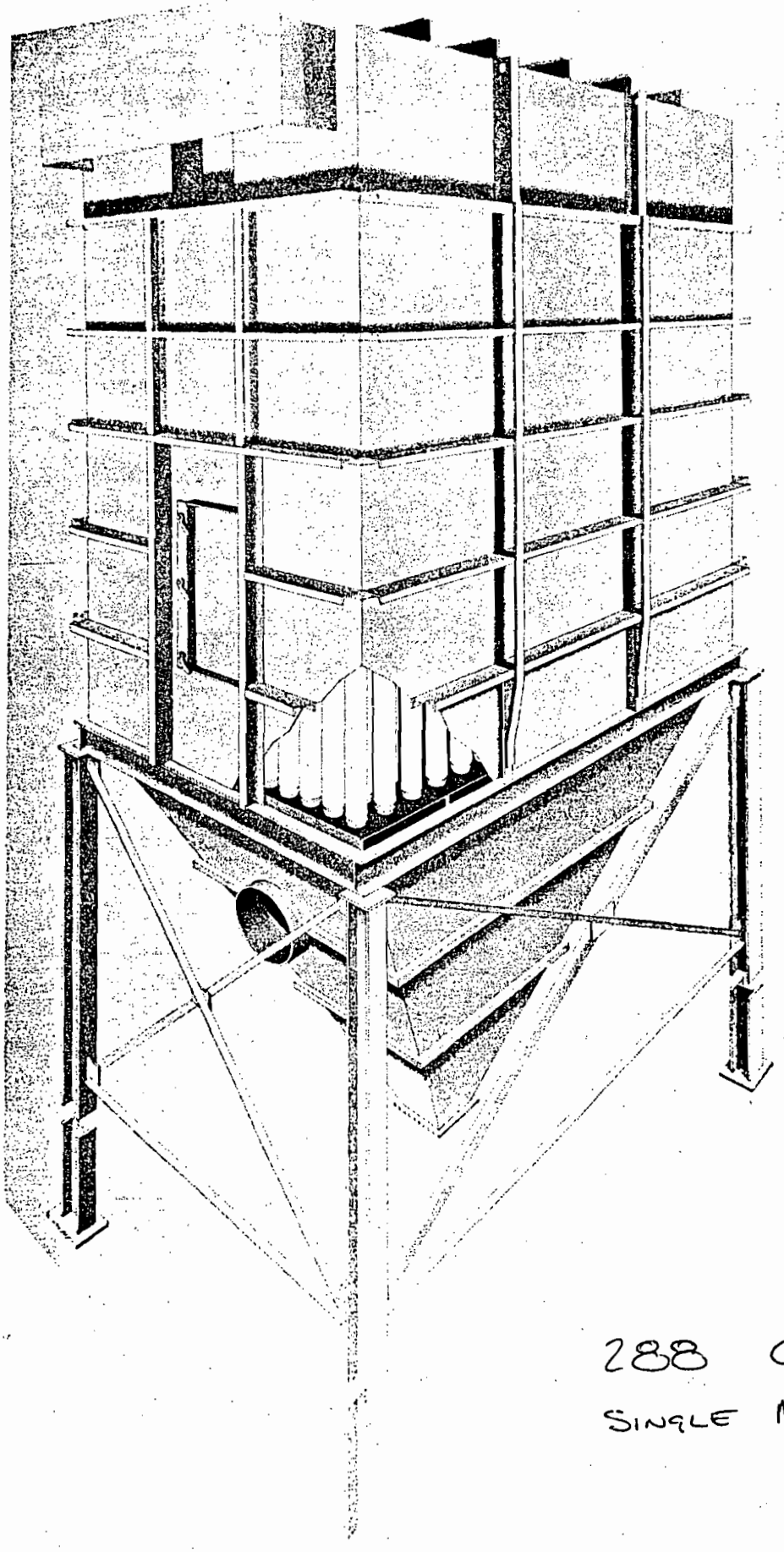


English

Col. Size	No. of Modules	Dimension "A"	Dimension "B"	No. Tubes	No. Hoppers	Shaker Motors No.	Shaker Motors HP.	Max. Weight	Cloth Area sq. ft. Gross	Cloth Area sq. ft. Net
264	1	11'8"	15'1"	264	1	1	3	10450	4950	—
264	2	21'8"	15'1"	528	2	2	3	20900	9900	4950
264	3	31'8"	15'1"	792	3	3	3	31350	14850	9900
264	4	41'8"	15'1"	1056	4	4	3	41800	19800	14850
264	5	51'8"	15'1"	1320	5	5	3	52250	24750	19800
264	6	61'8"	15'1"	1584	6	6	3	62700	29700	24750
288	1	11'8"	16'3"	288	1	1	3	12900	5400	—
288	2	21'8"	16'3"	576	2	2	3	25800	10800	5400
288	3	31'8"	16'3"	864	3	3	3	38700	16200	10800
288	4	41'8"	16'3"	1152	4	4	3	51600	21600	16200
288	5	51'8"	16'3"	1440	5	5	3	64500	27000	21600
288	6	61'8"	16'3"	1728	6	6	3	74400	32400	27000

Metric

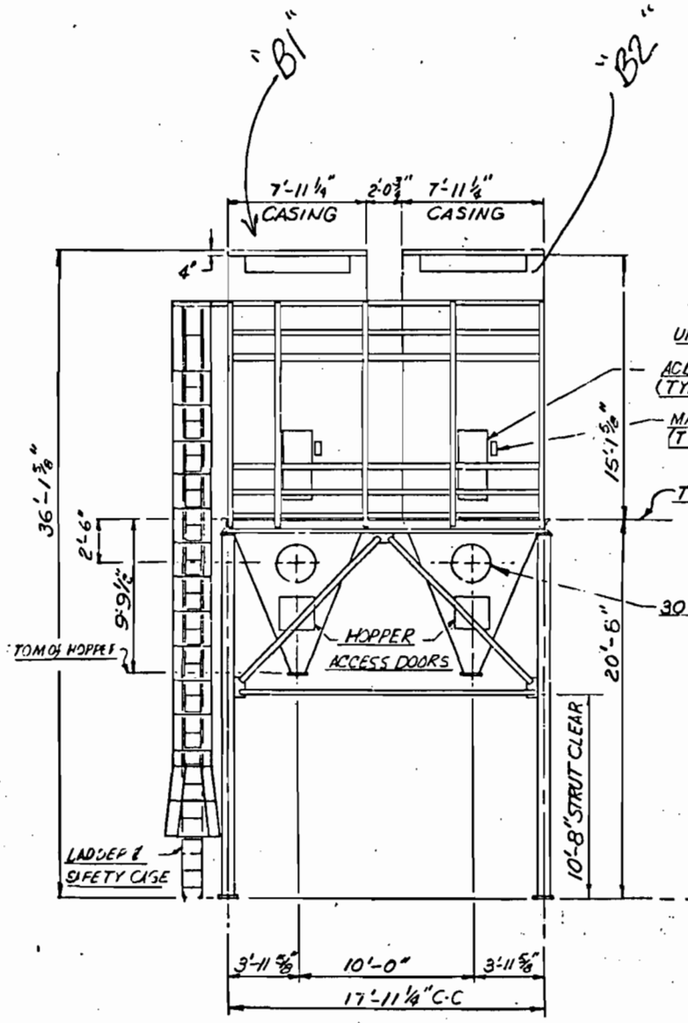
Col. Size	No. of Modules	Dimension mm "A"	Dimension mm "B"	Max. Weight kg	Cloth Area m^2 Gross	Cloth Area m^2 Net
264	1	3556	4597	4740	469.86	—
264	2	6604	4597	9480	919.71	469.86
264	3	9652	4597	14220	1379.57	919.71
264	4	12700	4597	18960	1839.42	1379.57
264	5	15748	4597	23700	2299.28	1839.42
264	6	18796	4597	28440	2759.13	2299.28
288	1	3556	4953	5851	501.66	—
288	2	6604	4953	11703	1003.32	501.66
288	3	9652	4953	17554	1504.98	1003.32
288	4	12700	4953	23406	2006.64	1504.98
288	5	15748	4953	29257	2508.30	2006.64
288	6	18796	4953	33748	3009.96	2508.30



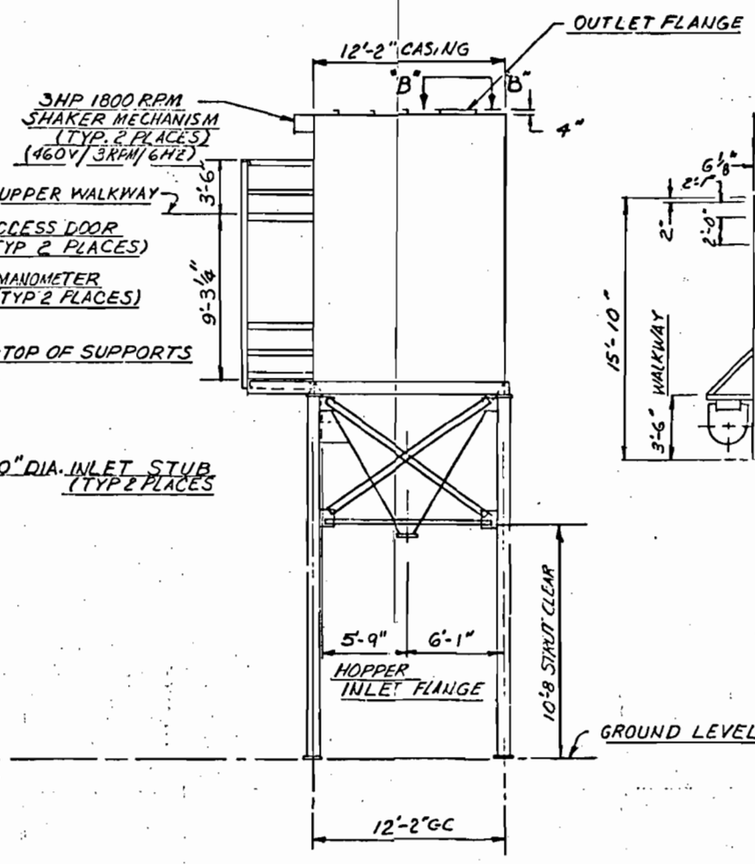
288 CT

SINGLE MODULE

02 03 29 D 002

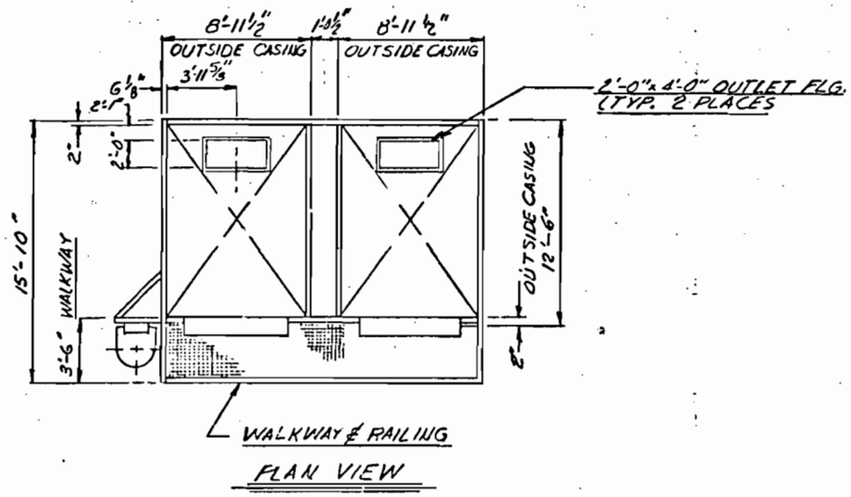


SIDE ELEVATION



END VIEW

LADDER & SAFETY CAGE OMITTED FOR CLARITY



WALKWAY & RAILING

PLAN VIEW

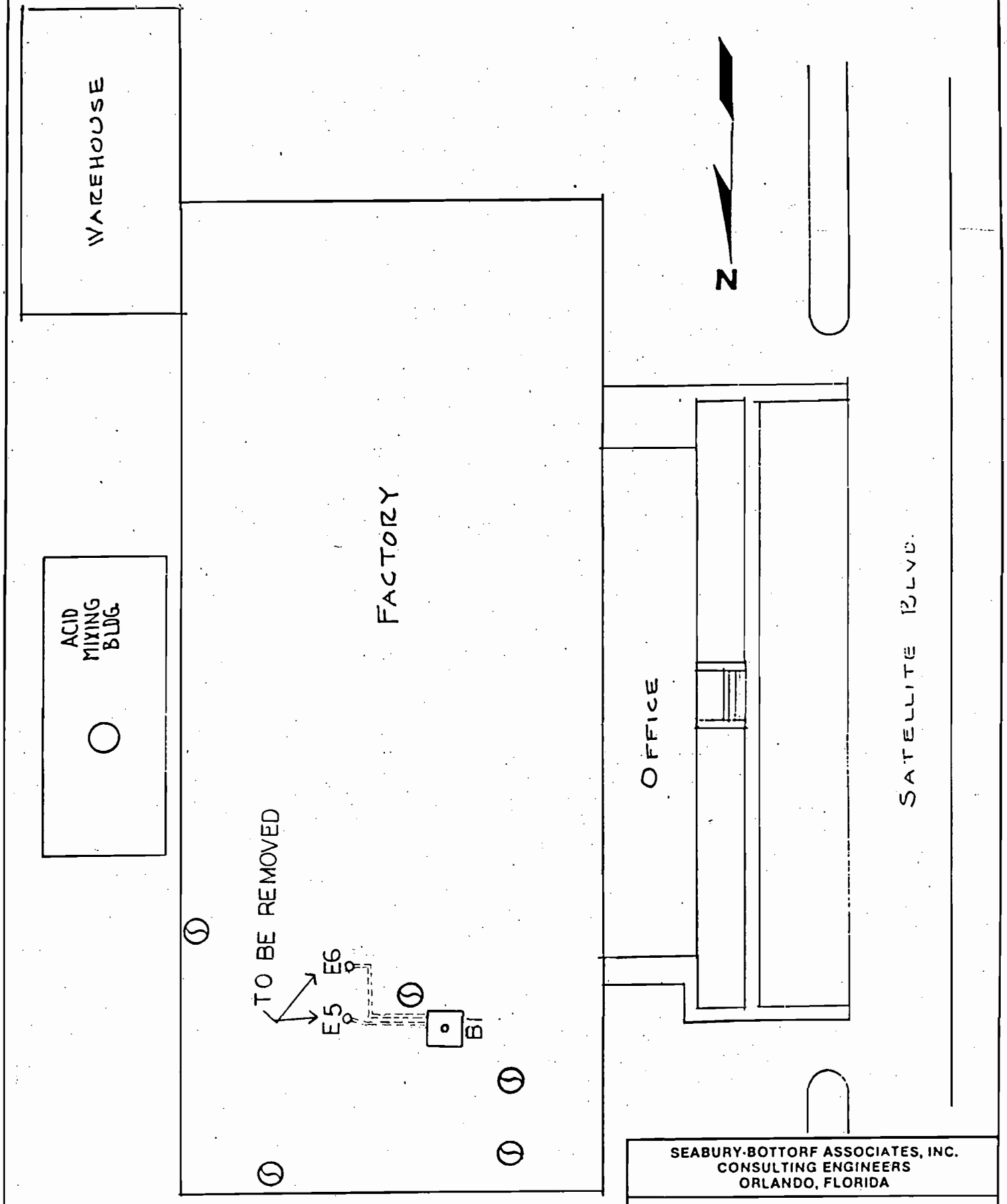
CUSTOMER FURNISHES:
FOUNDATIONS AND ANCHOR BOLTS
DUST CONTROL PIPING
EXHAUSTER INLET AND OUTLET PIPING
ELECTRIC WIRING AND CONDUIT

DOUBLE MODULE

DO NOT SCALE DRAWING	ENG'R'G. B/M
DRAWN T.M. 7-17-75	ORDER NO. 75-160-1-11-01
CHK. SRP 8-6-75	TITLE GENERAL ARRANGEMENT 8 SECTION 288 WELDED CASING
APP. L.J.C.	
DATE 8-6-75	
SCALE:	
CARBORUNDUM / POLLUTION CONTROL DIVISION	DWG. NO. 02 03 29 D 002 REV.
	SHEET 1 OF 2

1/10" 1/8"-1/4" 3/8"-3/4" 1/2"-1"

ATTACHMENT 7.



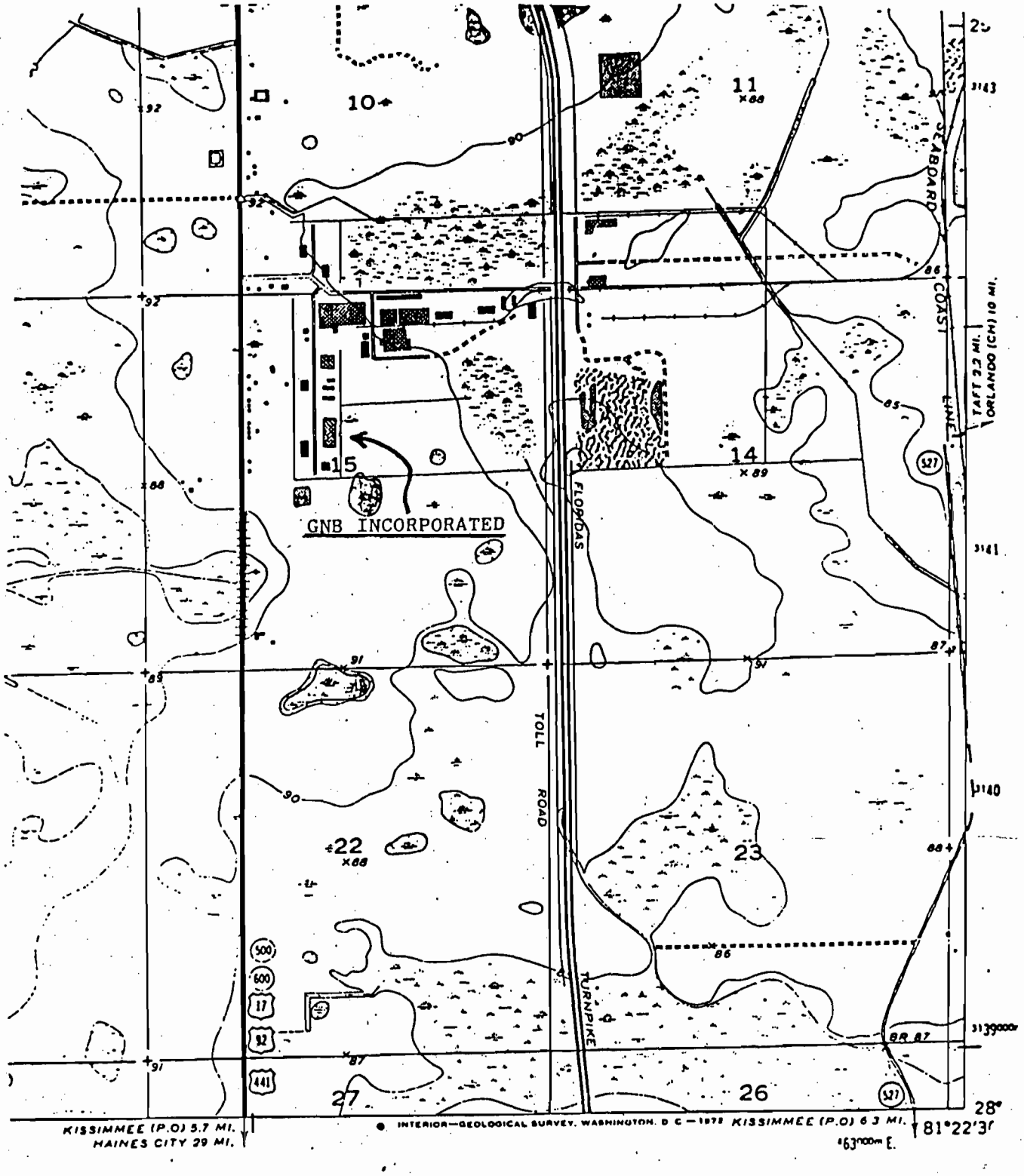
SITE PLAN
N.T.S.

Revised 6-10-86

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

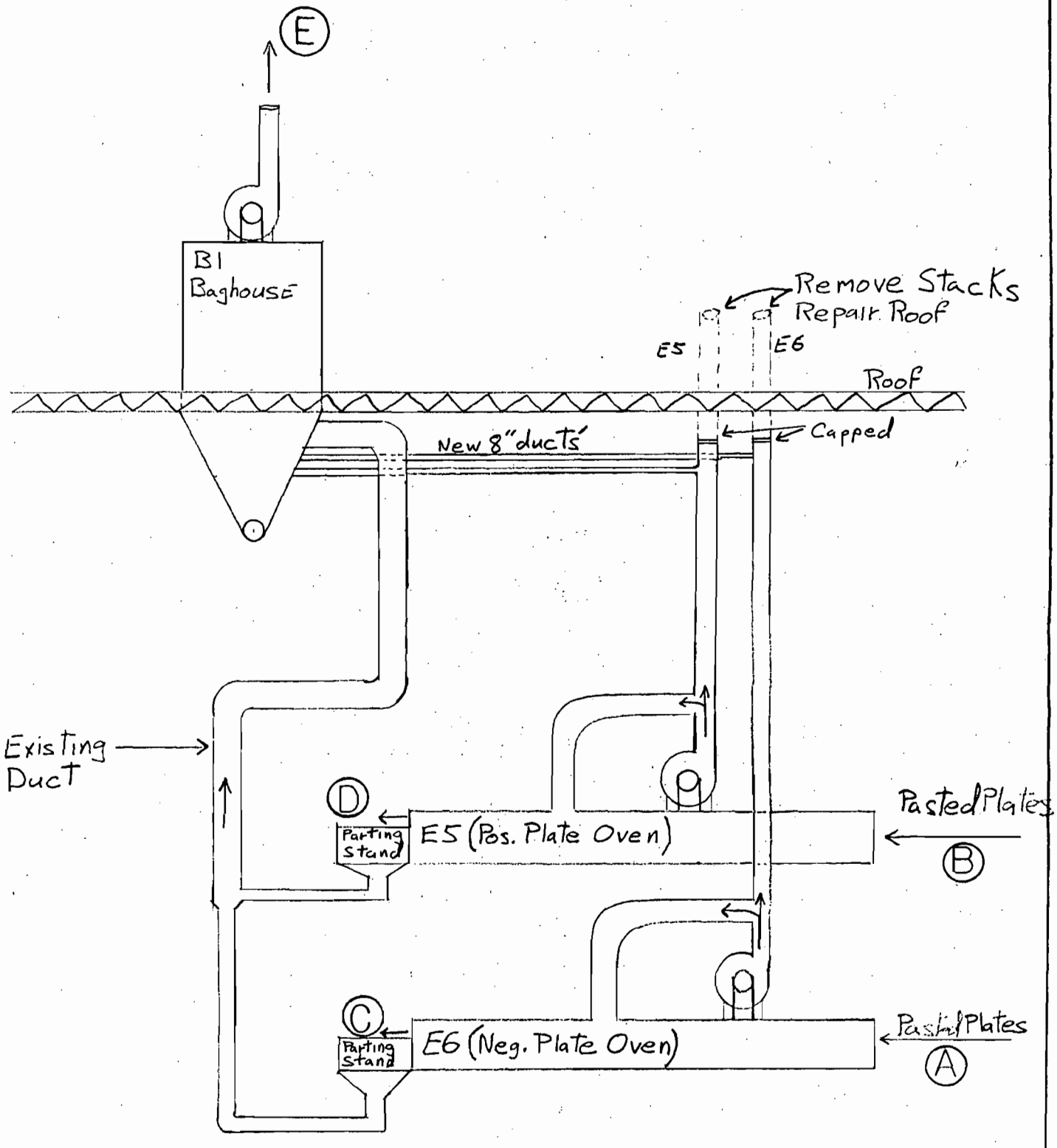
GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA	
GNB INCORPORATED ORLANDO FLORIDA	
DES. ~~ DWN. ~	115-7-2
SCALE NONE DATE 7/85	DRAWING NO.



FLOW DIAGRAM

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

G.N.B. INCORPORATED
ORLANDO, FLORIDA

DES. N/A	DWN. TRC	115-7-9
SCALE NTS	DATE 6-11-86	DRAWING NO.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANOO, FLORIDA 32803-3767

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

RECEIVED
FEB 24 1986
SEABURY BOTTORF ASSOCIATES INC.

Donald W. Groff
Manager of Facilities Engineering
GNB Incorporated
P.O. Box 64140
St. Paul, MN 55164

Dear Mr. Groff::

Orange County - AP
Three Baghouses for: #B1, System No.1, Pasting Operations
#B2, System No.3, Battery Assembly and
#B5, System No.4, Maintenance Free Battery Assembly

FEB 20 1986

Enclosed is Permit Number A048-112909, dated ..., to operate three Baghouses, issued pursuant to Section 403.087, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee 32301, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order 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 32301; 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 the Final Order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

cmc

A. Alexander, P.E.
District Manager
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803
(305) 894-7555

AA:ATS::jtm

Copies furnished to:

Seabury-Bottorf Associates, Inc.
John Bateman

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on FEB 20 1986 to the listed persons.

M. Jaramillo

Clerk Stamp

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.

FEB 20 1986

Clerk

Date

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

Permittee:
Donald W. Groff
Manager of Facilities Eng.
GNB Incorporated
P.O. BOx 64140
St.Paul, MN 55164

I. D. Number:
Permit/Certification
Number: AO48-112909
Date of Issue 02/20/86
Expiration Date: 02/17/91
County: Orange
Latitude/Longitude:
28°23'58"N/81°24'02"W
UTM: 17-460.3 KmE
UTM: 3142.3 KmN
Project: Three Baghouses for: #B1,System No.1, Pasting Operations; #2, System No.3, Battery Assembly and #B5, System No.4, Maintenance Free Battery Assembly

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

The permittee can operate the following emisssions point sources:

(1) #B1, System No.1, Pasting Operations Area utilizing a Baghouse (Carborundum Model 288CT-2) with a particulate collection efficiency of 99.5 percent.

(2) #B2, System No.3, Battery Assembly Operations Area utilizing a Baghouse (Carborundum Model 288CT-2) with a particulate collection efficiency of 99.5 percent.

B5 (3) #3, System No.4, Maintenance Free Battery Assembly Operations Area utilizing a Baghouse (Carborundum Model 288CT-2) with a particulate collection efficiency of 99.5 percent.

These sources are located at the GNB facility at 11331 Sattelite Blvd. Orlando, Orange County, Florida

Permittee:
Donald W. Groff
Manager of Facilities Eng.
GNB Incorporated

I. D. Number:
Permit/Certification
Number: A048-112909
Date of Issue:
Expiration Date: 02/17/91

SPECIFIC CONDITIONS:

1. No objectionable odors will be allowed, as per Rule 17-2.620(2), F.A.C.

2. There shall be no discharges of liquid effluents or contaminated runoff to surface or groundwater without prior approval from this office.

3. All unconfined emissions of particulate matter generated at this site shall be adequately controlled. (Rule 17-2.610(3), F.A.C.)
Area must be watered down should unconfined emissions occur.

4. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

5. The maximum permitted process rates, lead emission limits, and hours of operation of these sources are as follows:

Source Name	Process Rates (lbs/hr.product)	Emission Limits lbs/hours)	Hours of hrs/yr)
1. #B1,System No.1, Pasting Operations Area	8000	0.1950	4000
2. #B2,System No.3, Battery Assembly Operations Area	1200	0.2188	4000
3. #B5,System No.4, Maintenance-Free Battery Assembly Operations Area	6800	0.4902	4000

6. This source must be tested annually from the date of March 15,1986 by EPA Methods Nos.1,2,4,12 and 9, in accordance with 40 CFR 60.370 Subpart KK, revised November 15, 1985, page 45605.

Permittee:I. D. Number:
Donald W. Groff
Manager of Facilities Eng.
GNB Incorporated

Permit/Certification
Number: A048-112909
Date of Issue:
Expiration Date: 02/17/91

SPECIFIC CONDITIONS:

7. Orange County Environmental Protection Department, Air Permitting, Orlando, shall be notified at least ten (10) days in advance of the compliance tests so that we can witness them.

8. These sources are required to operate within 10 percent of permitted capacity during the compliance tests.

9. Submit for this facility, each calendar year, on or before March 1, an Annual Operations Report for the preceding calendar year as per Rule 17-4.14, F.A.C. [DER Form 17-1.202(6)].

10. All visible emission testing must be in accordance with Rules 17.2.700(1)(d)1.b. and shall not exceed 5 percent opacity.

11. The required test report shall be filed with Orange County Environmental Protection Department as soon as practical but no later than 45 days after the last test is completed.

12. This source must be tested for visible emissions at least ninety (90) days prior to permit expiration date.

13. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

ISSUED FEB 20 1986

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

cmc

A. Alexander, P.E.
District Manager
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803
(305) 894-7555

GNB INCORPORATED, ORLANDO, FLORIDA

EMISSION STANDARDS WITH IMPACTS TO THE NAAQS

BASED ON MODELING DATA FROM THE FLORIDA LEAD SIP

SOURCE	SIP IMPACT ug/m^3	TRUE IMPACT (BASED ON TEST DATA) ug/m^3	IMPACT BASED ON CURRENT EMISSION STANDARD ug/m^3	CURRENT EMISSION STANDARD WITH B1, E5 & E6 DUCTED TO B1 BAGHOUSE Lbs./Hr.	IMPACT BASED ON CURRENT EMISSION STANDARD WITH B1,E5 & E6 ADDED TOGETHER & EXHAUSTING THROUGH THE B1 BAGHOUSE ug/m^3
B1	.0358	$.0358 \times \frac{.0063}{.041} = .0055$	$.0358 \times \frac{.195}{.041} = .1703$	B1 + E5 + E6 = Total Allowable .195 + .0048 + .0048 = .2046	$.0358 \times \frac{.2046}{.041} = .1786$
B2	.0359	$.0359 \times \frac{.0056}{.046} = .0044$	$.0359 \times \frac{.2188}{.046} = .1708$	.2188*	.1708*
B3	.0445	$.0445 \times \frac{.0035}{.038} = .0041$	$.0445 \times \frac{.1808}{.038} = .2117$	.1808*	.2117*
B4	.0542	$.0542 \times \frac{.0332}{.063} = .0286$	$.0542 \times \frac{.2998}{.063} = .2579$	.2998*	.2579*
B5	.0355	$.0355 \times \frac{.0129}{.103} = .0044$	$.0355 \times \frac{.4902}{.103} = .1689$	.4902*	.1689*
B6	.0048	$.0048 \times \frac{.0042}{.003} = .0067$	$.0048 \times \frac{.0142}{.003} = .0227$	.0142*	.0227*
B7	.0077	$.0077 \times \frac{.0001}{.002} = .0004$	$.0077 \times \frac{.0096}{.002} = .0370$	.0096*	.0370*
E1	.0273	$.0273 \times \frac{.0194}{.025} = .0212$	$.0273 \times \frac{.119}{.025} = .1299$	.1190*	.1299*
E 2 & 3	.0140	$.0140 \times \frac{.0056}{.004} = .0196$	$.0140 \times \frac{.0192}{.004} = .0672$	.0192*	.0672*
E4	.0268	$.0268 \times \frac{.0155}{.026} = .0160$	$.0268 \times \frac{.1238}{.026} = .1276$	.1238*	.1276*
E5	.0032	$.0032 \times \frac{.0107}{.001} = .0342$	$.0032 \times \frac{.0048}{.001} = .0154$	Eliminate Point Source	No impact
E6	.0038	$.0038 \times \frac{.0143}{.001} = .0543$	$.0038 \times \frac{.0048}{.001} = .0182$	Eliminate Point Source	No impact
Reintrainment	.02	.02	.02		.02
Background	.10	.10	.10		.10
TOTAL	0.4135	.3196	1.5176	1.68	1.4923

P 408 532 128

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. T. E. Hatterschide	
Street and No.	
P.O., State and ZIP Code	
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 5/14/86	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983

SENDER: Complete items 1, 2, 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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. T. E. Hatterschide
GNB, Incorporated
P. O. Box 64100
St. Paul, MN 55164-0100

4. Type of Service:

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 408 532 128

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery
MAY 17 1986

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

ST PAUL, MN 551 1
MAY
17
1986

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

May 14, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. T. E. Hatterschide
Director of Manufacturing and Engineering
GNB, Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

Dear Mr. Hatterschide:

Re: Air Pollution Permits for GNB, Incorporated,
Orlando, Florida, Battery Manufacturing Plant

The department has reviewed the additional information on GNB's lead-acid battery manufacturing plant that was submitted by your consultant. Several questions were not answered completely and some issues have been raised in the modified request that will have to be resolved before the department can process your applications.

Please furnish the information requested below.

1. What is the maximum quantity of 1-1-1 trichloroethane and acetone used annually at this plant?

2. Please furnish the name and address of the operator of the off-site lead smelter used to reclaim scrap generated at this plant.

3. The test data shows the emissions from two sources (E5 and E6) exceed the allowable emission standards as published in the November 1, 1985, Federal Register. This may subject your plant to enforcement action. The department cannot issue construction permits for any source exceeding the allowable standard unless a plan and schedule exist to bring the source into compliance. Does GNB have a plan and schedule to lower the lead emissions from stacks E5 and E6 to 0.0048 lbs/hr?

4. We also acknowledge your request to re-allocate the total allowable lead emissions among the existing sources at this facility. The department cannot redistribute the promulgated

lead emissions for this facility because each individual source contains a source specific standard in the Federal Register.

If you wish to change the allowable emission standards for the specific sources at this plant, please submit a petition to amend the regulation in accordance with Chapter 120, Florida Statutes, along with data to support this request. The data should include the emission standards being requested and modeling results showing the proposed emissions will not cause a violation of the ambient air standard for lead (1.5 ug/m^3).

Our evaluation of the standards proposed in your consultant's April 7, 1986, letter shows the ambient air standard for lead would be exceeded at these emissions rates. Thus, the April 7 proposed standards cannot be approved.

When the issues raised in this letter are resolved, the department will consider your applications complete and resume processing them.

If you have any questions on this matter, please write me at the department's Tallahassee address or call Willard Hanks at (904)488-1344.

Sincerely,

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

CHF/WH/s

cc: T. Sawicki
J. Bottorf, Jr.
J. Brown

SEABURY-BOTTORF ASSOCIATES, INC.

CONSULTING ENGINEERS ANALYTICAL LABORATORY

4595 PARKBREEZE CT. ORLANDO, FLORIDA 32808-1057 305-298-0846

April 7, 1986 Project No. 115-7

MECHANICAL

ELECTRICAL

ENVIRONMENTAL

Mr. C. H. Fancy, P. E.
Deputy Chief
Bureau of Air Quality Management
Florida Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, Florida 32301-8241

Subject: Orange County - AP
GNB Incorporated
Seven Applications for Permits

Dear Mr. Fancy:

In response to your 11/20/85 letter requesting additional information to complete the referenced applications, all questions will be answered in the order in which they were asked.

General

1. The referenced plant was built in 1964. There has been no modifications since 1/14/80 which would increase lead emissions. NSPS does not apply to this facility.

2. See attached drawings.

3. See attached test results' table which lists all baghouses. Currently, there are no other air pollution control devices at this facility. A fume scrubber for a new acid mixing facility will be constructed in the near future (Permit #AC48-112906).

4. Solvent usage at the plant consists primarily of miscellaneous cleaning fluids (1985 records) as follows:

   a. 1-1-1 Trichloroethane - 1776# used to clean epoxy mixing machine.
   b. Acetone - 720# used for general cleanup.
   c. Viscor 170 (odorless kerosene) - 110 gallons used as a lubricant in grid casting.
   d. Parts washing solvent - 200 gallons (estimate) used in maintenance shop. Solvent is supplied, changed and disposed of by contracted service company.

5. Delete estimated emissions and use actual tested emission rates. As you can see on the attached table of emission test results, E5 and E6 are over the allowed emission rates, but the total facility emission rate is only 7.8% of the total 1.68 Lbs./Hr. allowed emissions. The individual allowed emission rate for each source was determined by a joint effort between GNB and DER Orlando District Office by taking the total allowed emission rate of 1.68 Lbs./Hr. and dividing it by ratioing known fan CFM rates to individual emission limits. GNB Incorporated request that their individual emission rates be changed by dividing the 1.68 Lb./Hr. total allowable in a more practical manner. We propose to base the allowable emission rates on each source's contribution to the actual emissions as follows:

Source	Allowed Emission Rate (Lbs./Hr.)	Proposed Allowable Emission Rate (Lbs./Hr.)
E1	0.1190	0.24822
E2	0.0096	0.03838
E3	0.0096	0.03326
E4	0.1238	0.19832
E5	0.0048	0.13691
E6	0.0048	0.18297
B1	0.1950	0.08064
B2	0.2188	0.07165
B3	0.1808	0.04478
B4	0.2998	0.42479
B5	0.4902	0.16506
B6	0.0142	0.05374
B7	0.0096	0.00128
Total	1.68	1.68

Stack E1 - Pot Furnace Exhaust Hood (File No. 111462)

1. The application was in error. Please correct to show 8 gas fired pots for this stack. There are a total of 8 gas fired pots in this plant and 2 electric pots, one for Stack E2 and one for Stack E3.

2. Please delete all emission estimates and replace with actual test result data. Annual production of 626.250 was a typographical error; the correct number is 656,250 batteries/year.

Stack E2 and E3 - Electric Pot Furnaces (File #111463 & 111464)

1. The drawing that refers to Scrap Ovens No. 1 and No. 2 is incorrect. There are no scrap ovens at this facility. These are Lead Melting Pots.

2. Please delete these emission factors and replace with actual test data.

Stack E4 - Plate Pasting Operation (File #111465)

1. Delete and replace with actual test data.

Stack E5 and E6 - Flash Paste Drying Oven (File #111466 & 111467)

1. Stack E5 is the exhaust for Oven #1; Stack E6 is the exhaust for Oven #2.

2. Droppings are removed monthly with the Hoffman Vacuum System. Material collected is recycled through an off-site lead smelter.

3. No air pollution control equipment is used on E5 or E6.

4. Delete all emission factors used and replace with actual test data.

Stack B7 - Hoffman Vacuum System

1. This system does not control emissions from any process equipment. This is a centralized vacuum system used for housekeeping only.

2. Material collected is recycled through an off-site lead smelter.

3. Delete emission estimate and replace with actual test data.

In addition to the above requested application changes, GNB Incorporated request that the 5000 hours/yr. operating time by changed to 6000 hours/yr. for Stack E1, E2 and E3.

If you have any other questions or need additional information, please contact me at (305) 298-0846.

Very truly yours,

SEABURY-BOTTORF ASSOCIATES, INC.

Roger T Caldwell

Roger T. Caldwell
Environmental Project Engineer

RTC/ac

Encls: One (1) set of Drawings,
Table (EPA Method 12 Test Results),
Stack Test Report Summaries (for 13 sources.
(Complete Report already submitted)

cc: Mr. Donald W. Groff

GNB INCORPORATED, ORLANDO, FLORIDA

EPA METHOD 12 TEST RESULTS

Source Name	GNB I.D.	Lead Emission Rate, Lb./Hr.		Baghouse	Permit No.
		Allowable	Measured		
Pot Hood	E1	0.1190	0.0194	No Control	Not issued
Pot Hood	E2	0.0096	0.0030	No Control	Not issued
Pot Hood	E3	0.0096	0.0026	No Control	Not issued
Tray Exhaust	E4	0.1238	0.0155	No Control	Not issued
Casting,QC,Paste Mixing	B3	0.1808	0.0035	Ruemelin 2750	A048-105874
Positive Plate Pasting	E5	0.0048	0.0107	No Control	Not issued
Negative Plate Pasting	E6	0.0048	0.0143	No Control	Not issued
Plate Pasting/ Parting	B1	0.1950	0.0063	Carborundum #288-CT2	A048-112909
Assembly	B2	0.2188	0.0056	Carborundum #288-CT2	A048-112909
Assembly	B4	0.2998	0.0332	Ruemelin 4580	A048-105874
Assembly	B5	0.4902	0.0129	Carborundum #288-CT2	A048-112909
Bulk Oxide Loading	B6	0.0142	0.0042	Flex Kleen 114-UK-49	A048-105874
Central Vacuum	B7	0.0096	0.0001	Hoffman #481	Not issued
TOTAL		1.68	0.1313		

Engineering Report

Lead Emissions Test

GNB Batteries, Inc.

Assembly Baghouse (B5)

February 19, 1985

Seabury - Bottorf Associates, Inc.
Consulting Engineers & Analytical Laboratory
4595 Parkbreeze Ct. Orlando, Fla. 32808-1057

Introduction

On February 19, 1985 a Lead Emissions Test was conducted on the permitted Carborundum Baghouse (B5) which is operated by GNB Batteries, Inc. The Carborundum Baghouse controls emissions from the battery assembly area. The test was performed using EPA Reference Methods No.12 and No.9. The facility operated normally during the testing. All other test procedures were performed in accordance with the Florida Administrative Code, Chapter 17-2.

The test results show that this source is in compliance for lead emissions. A summary of the results are as follows:

	Run 1	Run 2	Run 3	Average
Process Rate (tons/hour)	2.154	1.320	1.452	1.642
Lead Emissions (pounds/hour)	0.0376	0.0003	0.0007	0.0129
Allowable Lead Particulate (pounds/hour)	0.4902	0.4902	0.4902	0.4902
Isokinetic Sampling Rate (%)	100.70	100.09	101.54	100.78

The test, analysis of samples, and all other procedures were performed in a professional manner and in accordance with the official procedures as outlined in Chapter 17-2, latest edition, of the State of Florida Department of Environmental Regulation Rules.

SEABURY - BOTTORF ASSOCIATES, INC.

Kent D. Bottorf

Kent D. Bottorf, Vice President

General Information

Facility Name: GNB Batteries, Inc.

Facility Address: P. O. Box 1310 · Orlando, Florida 32859

Type of Facility: Automotive Battery Production

Type of Source: Assembly Exhaust

Permit Number: AO 48 - 38738

Date of Test: February 19, 1985

Type of Pollution Control Device: Baghouse

Persons Conducting Test: Bill Arlington, Test Equipment Operator
Bob Chartier, Probe Holder
Kent Bottorf, Analysis and Report

Plant Personnel Involved: J. N. Robson

Test Method Used: EPA Reference Method 12

Modifications: Flexible sample line between filter and first impinger.

Field Data

	Run 1	Run 2	Run 3
Date of Test Run :	2/19/85	2/19/85	2/19/85
Test Start Time :	12.47	3.55	5.40
Test Finish Time :	2.52	5.10	6.54
→ Actual Stack Area (Sq. Ft.) :	7.4665	7.4665	7.4665
Corrected Stack Area (Sq. Ft.)	7.4665	7.4665	7.4665
Impinger H_2O Collected (Ml.) :	8	8	9
Silica Gel H_2O Collected (g.) :	2	2	3
Volume Metered (Cu. Ft.) :	84.14	56.97	58.51
Dry Gas Meter Cal Factor :	.9991	.9991	.9991
Average Square Root of Delta P :	1.185	1.194	1.2
Average Delta H (In. H_2O) :	1.877	1.903	1.921
Average Meter Temperature (Deg. R) :	547.1	555.4	558.8
→ Average Stack Temperature (Deg. R) :	548.8	547.4	544.7
Stack Pressure (In. Hg.) :	30.175	30.175	30.175
Barometric Pressure (In. Hg.) :	30.21	30.21	30.21
Actual Nozzle Diameter (In.) :	.191	.191	.191
Actual Nozzle Area (Sq. Ft.) :	1.99E-04	1.99E-04	1.99E-04
Actual Sample Time (min.) :	108	72	72
Pitot Tube Coefficient :	.819	.819	.819
Average Sampling Rate (cfm) :	.78	.79	.81
Average Cyclonic Flow Angle :	0	0	0
Average Cosine of Flow Angles :	1	1	1

Engineering Report

Lead Emissions Test

GNB Batteries, Inc.

Tray Exhaust (E4)

February 20, 1985

Seabury - Bottorf Associates, Inc.
Consulting Engineers & Analytical Laboratory
4595 Parkbreeze Ct. Orlando, Fla. 32808-1057

Introduction

On February 20, 1985 a Lead Emissions Test was conducted on the Tray Exhaust (E4) which is operated by GNB Batteries, Inc.. The test was performed using EPA Reference Methods No.12 and No.9. The facility operated normally during the testing. All other test procedures were performed in accordance with the Florida Administrative Code, Chapter 17-2.

The test results show that this source is in compliance for lead emissions. A summary of the results are as follows:

	Run 1	Run 2	Run 3	Average
Process Rate (tons/hour)	1.062	1.494	1.198	1.251
Lead Emissions (pounds/hour)	0.0002	0.0380	0.0084	0.0155
Allowable Lead Particulate (pounds/hour)	0.1238	0.1238	0.1238	0.1238
Isokinetic Sampling Rate (%)	100.37	98.04	97.16	98.52

The test, analysis of samples, and all other procedures were performed in a professional manner and in accordance with the official procedures as outlined in Chapter 17-2, latest edition, of the State of Florida Department of Environmental Regulation Rules.

SEABURY - BOTTORF ASSOCIATES, INC.

Kent D. Bottorf, Vice President

General Information

Facility Name: GNB Batteries, Inc.

Facility Address: P. O. Box 1310 Orlando, Florida 32859

Type of Facility: Automotive Battery Production

Type of Source: Pasting Exhaust

Date of Test: February 20, 1985

Type of Pollution Control Device: None

Persons Conducting Test: Bill Arlington, Test Equipment Operator
Bob Chartier, Probe Holder
Kent Bottorf, Analysis and Report

Plant Personnel Involved: J. N. Robson

Test Method Used: EPA Reference Method 12

Modifications: Flexible sample line between filter and first impinger.

Field Data

	Run 1	Run 2	Run 3
Date of Test Run :	2/20/85	2/20/85	2/20/85
Test Start Time :	8.01	10.06	1.00
Test Finish Time :	9.31	12.30	2.40
Actual Stack Area (Sq. Ft.) :	4.9086	4.9086	4.9086
Corrected Stack Area (Sq. Ft.)	4.9086	4.9086	4.9086
Impinger H_2O Collected (Ml.) :	10	8	9
Silica Gel H_2O Collected (g.) :	2	2	2
Volume Metered (Cu. Ft.) :	60.14	59.26	59.81
Dry Gas Meter Cal Factor :	.9991	.9991	.9991
Average Square Root of Delta P :	1.062	1.053	1.062
Average Delta H (In. H_2O) :	1.54	1.518	1.543
Average Meter Temperature (Deg. R) :	532.5	546.7	554.2
Average Stack Temperature (Deg. R) :	534	545	548.4
Stack Pressure (In. Hg.) :	30.053	30.053	30.053
Barometric Pressure (In. Hg.) :	30.09	30.09	30.09
Actual Nozzle Diameter (In.) :	.1908	.1908	.1908
Actual Nozzle Area (Sq. Ft.) :	1.99E-04	1.99E-04	1.99E-04
Actual Sample Time (min.) :	88	88	88
Pitot Tube Coefficient :	.817	.817	.817
Average Sampling Rate (cfm) :	.68	.67	.68
Average Cyclonic Flow Angle :	0	0	0
Average Cosine of Flow Angles :	1	1	1

GNB Incorporated Automotive Battery Division

Mailing Address:
P.O. Box 64100
St. Paul, MN 55164-0100 U.S.A.

1110 Highway 110
Mendota Heights, MN 55118
Telephone (612)681-5000

March 31, 1986

Mr. Steve Smallwood
Florida Dept. of Environmental Regulation
St. Johns River District
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803-3767

Dear Mr. Smallwood:

Attached is one copy of stack test results for GNB's facility in Orlando as required in the November 1, 1985 Federal Register (pages 45603-45606). Sources B5 and E4 were previously tested and results submitted within the allocated times and were not retested.

Final proofreading of the report turned up numerous typos where "plate pasting" was listed as "paste plating." I believe all errors were corrected but should any references to "paste plating" remain, be advised that they also should be changed.

Should there be any questions, please contact me.

Very truly yours,

GNB Incorporated

Donald W. Groff
Manager, Facilities Engineering

cc: U.S. EPA Region IV
T.E. Hatterschide
Roger Caldwell/Seabury-Bottorf

/fhs
fc1g41

CONTENTS

FIGURES

SECTION 2

SUMMARY OF RESULTS

Table 2-1 summarizes the lead emission results for the sources tested at GNB's Orlando, Florida, facility. The total measured emission rate for the 11 sources was 0.1027 lb/h, less than one-tenth of the total allowable emission rate of 1.066 lb/h. The emission rates of two sources--the positive plate pasting exhaust and negative plate pasting exhaust--did, however, exceed their individual allowable emission rates.

The allowable visible emission opacity limit for each source was less than 5 percent. One source, Pot Hood E2, was operated during the third shift (2300 to 0700), and visible emission tests were not conducted. All opacity readings for 9 of the 10 sources evaluated were 0 percent. For the other source, Pot Hood E1, several individual readings exceeded 5 percent opacity, but the average 1-h opacity was less than 1 percent. All opacity data are included in Appendix H.

The following subsections present lead results for each of the sources tested.

POT HOOD E1

Table 2-2 is a summary of exhaust conditions at Pot Hood E1. The average volumetric rate was 8,210 actual cubic feet per minute (acfm); when corrected to dry standard conditions (68°F and 29.92 in.Hg), it was 7,500 dscfm. The average exhaust temperature was 108°F and moisture content was 1.5 percent. The lead concentration in the exhaust averaged 0.00030 gr/dscf and the

SECTION 1

INTRODUCTION

From February 18 to March 3, 1986, personnel from PEI Associates, Inc., conducted lead emission tests (Method 12*) to determine the compliance status of 11 sources at GNB's Orlando, Florida, facility with respect to permitted emission limits. This facility manufactures a variety of lead-acid batteries. Visible emission tests (Method 9*) were conducted in conjunction with the lead emission tests for all but one source that operated only during the third shift [11 p.m. to 7 a.m. (2300-0700)].

Messrs. Don Oliver and Jim Varian of GNB coordinated the test program. Messrs. Kent Bottorf and Roger Caldwell of Seabury-Bottorf Associates, Inc., conducted the visible emission tests. Mr. Paul Reinermann was the onsite coordinator and project manager for PEI.

* 40 CFR 60, Appendix A, Methods 9 and 12, July 1985.

TABLES

TABLE 2-1. OVERALL SUMMARY OF RESULTS

Source name	GNB I.D.	Lead emission rate, lb/h		Opacity, %
		Allowable[a]	Measured	
Pot hood	E1	0.1190	0.0194	<1
Pot hood	E2	0.0096	0.0030	ND[b]
Pot hood	E3	0.0096	0.0026	0
Casting/QC Lab/paste mixing	B3	0.1808	0.0035	0
Positive plate pasting	E5	0.0048	0.0107	0
Negative plate pasting	E6	0.0048	0.0143	0
Plate pasting/parting	B1	0.1950	0.0063	0
Assembly	B2	0.2188	0.0056	0
Assembly	B4	0.2998	0.0332	0
Bulk oxide loading	B6	0.0142	0.0042	0
Central vacuum	B7	0.0096	<0.0001	0
Total		1.066	0.1029	

[a] Permit conditions.

[b] Not determined. Source operates third shift only (2300 to 0700).

TABLE 2-2. SUMMARY OF EXHAUST CONDITIONS AT POT HOOD E1

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
E1-1	2/24	914-1006	8,340	7,730	105	1.3	0.00020	0.0135
E1-2	2/24	1125-1227	8,240	7,550	110	1.6	0.00027	0.0173
E1-3	2/24	1240-1342	8,040	7,230	110	1.7	0.00044	0.0274
Average			8,210	7,500	108	1.5	0.00030	0.0194

[a] acfm - Actual cubic feet per minute.

[b] dscfm - Dry standard cubic feet per minute.

[c] gr/dscf - Grains per dry standard cubic foot.

lead emission rate averaged 0.0194 lb/h. During Test E1-3, visible emissions were observed from this source when wax was added to the pot of molten lead to remove impurities.

POT HOOD E2

Table 2-3 is a summary of exhaust conditions at Pot Hood E2. The average volumetric flow rate was 735 acfm; when corrected to dry standard conditions, it was 717 dscfm. The average exhaust temperature was 80°F and moisture content was 1.0 percent. The lead concentration in the exhaust averaged 0.00048 gr/dscf and the lead emission rate averaged 0.0030 lb/h.

TABLE 2-3. SUMMARY OF EXHAUST CONDITIONS AT POT HOOD E2

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
E2-1	2/26	217-320	719	701	80	1.0	0.00056	0.0034
E2-2	2/26	331-434	731	713	80	1.0	0.00033	0.0020
E2-3	2/26	445-547	754	738	79	0.9	0.00055	0.0035
Average			735	717	80	1.0	0.00048	0.0030

POT HOOD E3

Table 2-4 is a summary of exhaust conditions at Pot Hood E3. The average volumetric flow rate was 979 acfm; when corrected to dry standard conditions, it was 951 dscfm. The average exhaust temperature was 80°F and moisture content was 0.9 percent. The lead concentration in the exhaust averaged 0.00032 gr/dscf and the lead emission rate averaged 0.0026 lb/h. All opacity readings for this source were 0 percent.

TABLE 2-4. SUMMARY OF EXHAUST CONDITIONS AT POT HOOD E3

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
E3-1	2/25	812-916	933	908	79	1.0	0.00040	0.0031
E3-2	2/25	928-1030	998	975	78	0.8	0.00029	0.0024
E3-3	2/25	1046-1150	1,005	971	83	1.0	0.00026	0.0022
Average			979	951	80	0.9	0.00032	0.0026

CASTING, QC LAB, AND PASTE MIXING, BAGHOUSE B3

Table 2-5 is a summary of exhaust conditions for casting, QC Lab and paste mixing operations vented to Baghouse B3. The average volumetric flow rate was 7,160 acfm; when corrected to dry standard conditions, it was 6,640 dscfm. The average exhaust temperature was 98°F and moisture content was 2.7 percent. The lead concentration in the exhaust averaged 0.000061 gr/dscf and the lead emission rate averaged 0.0035 lb/h. The lead emissions reported for Runs 2 and 3 were based on the detection limit of 130 micrograms (μg) of lead. All opacity readings were 0 percent.

POSITIVE PLATE PASTING, E5

Table 2-6 is a summary of exhaust conditions for positive plate pasting at Source E5. The average volumetric flow rate was 1,560 acfm; when corrected to dry standard conditions, it was 1,370 dscfm. The average exhaust temperature was 129°F and moisture content was 2.5 percent. The lead concentration in the exhaust averaged 0.00092 gr/dscf and the lead emission rate averaged 0.0107 lb/h. All opacity readings were 0 percent.

TABLE 2-5. SUMMARY OF EXHAUST CONDITIONS FOR CASTING, QC LAB, AND PASTE MIXING, BAGHOUSE B3

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
B3-1	2/21	1158-1304	7230	6620	104	2.8	0.000098	0.0056
B3-2	2/21	1351-1455	6710	6190	104	2.1	<0.000045	<0.0024
B3-3	2/24	717-820	7550	7120	85	3.2	<0.000039	<0.0024
Average			7160	6640	98	2.7	0.000061	0.0035

TABLE 2-6. SUMMARY OF EXHAUST CONDITIONS FOR POSITIVE PLATE PASTING, E5

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
E5-1	2/20	728-834	1480	1300	125	2.9	0.00117	0.0131
E5-2	2/20	1026-1226	1570	1380	131	1.9	0.00094	0.0111
E5-3	2/20	1239-1419	1620	1420	131	2.8	0.00066	0.0080
Average			1560	1370	129	2.5	0.00092	0.0107

NEGATIVE PLATE PASTING, E6

Table 2-7 is a summary of exhaust conditions for negative plate pasting at Source E6 . The average volumetric flow rate was 1,560 acfm; when corrected to dry standard conditions, it was 1,220 dscfm. The average exhaust temperature was 191°F and moisture content was 4.2 percent. The lead concentration in the exhaust averaged 0.00136 gr/dscf and the lead emission rate averaged 0.0143 lb/h. All opacity readings were 0 percent.

TABLE 2-7. SUMMARY OF EXHAUST CONDITIONS FOR NEGATIVE PLATE PASTING, E6

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
E6-1	2/19	742-857	1580	1290	169	3.6	0.00146	0.0161
E6-2	2/19	922-1026	1580	1270	171	4.1	0.00130	0.0142
E6-3	2/19	1039-1250	1510	1100	232	4.9	0.00133	0.0125
Average			1560	1220	191	4.2	0.00136	0.0143

PLATE PASTING/PARTING, BAGHOUSE B1

Table 2-8 is a summary of exhaust conditions for plate pasting/parting operations vented to Baghouse B1. The average volumetric flow rate was 12,830 acfm; when corrected to dry standard conditions, it was 12,600 dscfm. The average exhaust temperature was 71°F and moisture content was 1.1 percent. The lead concentration in the exhaust averaged 0.000059 gr/dscf and the lead emission rate averaged 0.0063 lb/h. All opacity readings were 0 percent.

TABLE 2-8. SUMMARY OF EXHAUST CONDITIONS FOR PLATE PASTING/PARTING, BAGHOUSE B1

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
B1-1	2/28	814-939	12,720	12,410	74	1.3	0.000059	0.0062
B1-2	2/28	959-1144	12,990	12,720	73	1.0	0.000054	0.0059
B1-3	2/28	1200-1302	12,780	12,660	67	1.0	0.000064	0.0069
Average			12,830	12,600	71	1.1	0.000059	0.0063

ASSEMBLY OPERATIONS, BAGHOUSE B2

Table 2-9 is a summary of exhaust conditions for assembly operations vented to Baghouse B2. The average volumetric flow rate was 14,250 acfm; when corrected to dry standard conditions, it was 13,630 dscfm. The average exhaust temperature was 81°F and moisture content was 1.8 percent. The lead concentration in the exhaust averaged 0.000048 gr/dscf and the lead emission rate averaged 0.0056 lb/h. Lead emissions reported for Run 3 were based on the detection limit value. All opacity readings were 0 percent.

TABLE 2-9. SUMMARY OF EXHAUST CONDITIONS FOR ASSEMBLY OPERATIONS, BAGHOUSE B2

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
B2-1	2/27	828-948	14,140	13,570	78	2.0	0.000039	0.0045
B2-2	2/27	1141-1245	14,610	13,860	86	1.7	0.000065	0.0078
B2-3	2/28	658-801	14,010	13,460	80	1.6	<0.000039	<0.0045
Average			14,250	13,630	81	1.8	0.000048	0.0056

ASSEMBLY OPERATIONS, BAGHOUSE B4

Table 2-10 is a summary of exhaust conditions for assembly operations vented to Baghouse B4. The average volumetric flow rate was 18,740 acfm; when corrected to dry standard conditions, it was 18,370 dscfm. The average exhaust temperature was 73°F and moisture content was 0.9 percent. The lead concentration in the exhaust averaged 0.000210 gr/dscf and the lead emission rate averaged 0.0332 lb/h. The lead emissions reported for Run 2 were based on the detection limit value. All opacity readings were 0 percent.

TABLE 2-10. SUMMARY OF EXHAUST CONDITIONS FOR ASSEMBLY OPERATIONS, BAGHOUSE B4

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
B4-1	3/3	802-923	18,590	18,420	67	1.1	0.000464	0.0733
B4-2	3/3	940-1042	18,810	18,430	73	0.9	<0.000055	<0.0087
B4-3	3/3	1140-1242	18,810	18,270	79	0.8	0.000112	0.0175
Average			18,740	18,370	73	0.9	0.000210	0.0332

BULK OXIDE LOADING OPERATIONS, BAGHOUSE B6

Table 2-11 is a summary of exhaust conditions for the bulk oxide loading operations vented to Baghouse B6. The average volumetric flow rate was 537 acfm; when corrected to dry standard conditions, it was 508 dscfm. The average exhaust temperature was 90°F and moisture content was 2.1 percent. The lead concentration in the exhaust averaged 0.00106 gr/dscf and the lead emission rate averaged 0.0042 lb/h. All opacity readings were 0 percent.

TABLE 2-11. SUMMARY OF EXHAUST CONDITIONS FOR BULK OXIDE LOADING, BAGHOUSE B6

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
B6-1	2/18	855-957	630	600	90	1.4	0.00027	0.0014
B6-2	2/20	909-1011	536	503	92	2.1	0.00095	0.0041
B6-3	2/21	1001-1102	444	420	87	2.7	0.00197	0.0071
Average			537	508	90	2.1	0.00106	0.0042

CENTRAL VACUUM OPERATIONS, BAGHOUSE B7

Table 2-12 is a summary of exhaust conditions for central vacuum operations vented to Baghouse B7. The average volumetric flow rate was 371 acfm; when corrected to dry standard conditions, it was 299 dscfm. The average exhaust temperature was 185°F and moisture content was 1.5 percent. The lead concentration in the exhaust averaged less than 0.00004 gr/dscf and the lead emission rate averaged less than 0.0001 lb/h. The lead emissions reported for all three runs are based on the detection limit. All opacity readings were 0 percent.

TABLE 2-12. SUMMARY OF EXHAUST CONDITIONS FOR CENTRAL VACUUM OPERATIONS, BAGHOUSE B7

Run No.	Date (1986)	Test time (24h)	Flow rate		Temperature, °F	Moisture, %	Lead	
			acfm[a]	dscfm[b]			Concentration, gr/dscf[c]	Emission rate, lb/h
B7-1	2/18	1102-1204	308	263	152	1.5	<0.00004	<0.0001
B7-2	2/18	1220-1323	408	322	202	1.4	<0.00004	<0.0001
B7-3	2/18	1338-1440	396	313	200	1.7	<0.00004	<0.0001
Average			371	299	185	1.5	<0.00004	<0.0001

SECTION 3

PROCESS DESCRIPTIONS

Figure 3-1 is an overview of the GNB facility in Orlando, Florida. All emission sources are indicated by their GNB ID on Figure 3-1. General emission source information is presented in Table 3-1.

This section describes the processes involved in the manufacture of lead acid batteries and summarizes the pertinent process data. The process data provided by GNB are presented in Appendix F. The process rates presented in the following subsections are based on an 8-h operating shift.

POT HOODS

Casting of the lead grids of a battery requires that the lead be melted in a pot. A hood is used to control the emissions from this pot of molten lead. Wax added to help purify the molten lead can create visible emissions for 10 to 15 minutes.

The three pot hood emission sources at GNB generally operate for 8 hours each day; the remainder of the day the hood fans are operating, but no lead is usually transferred to or from the pots. Pot hood emission source E1 exhausts emissions from the pot feeding nine grid-casting machines; during the emission test, this source processed 2235 lb/h of lead. Pot hood emission sources E2 and E3 exhaust emissions from the pots in the maintenance-free battery-grid-casting area. Pot Hood E2 operates primarily during the third shift. During the emission tests, Pot Hood E2 processed 372 lb/h of lead, and Pot Hood E3 processed 405 lb/h of lead.

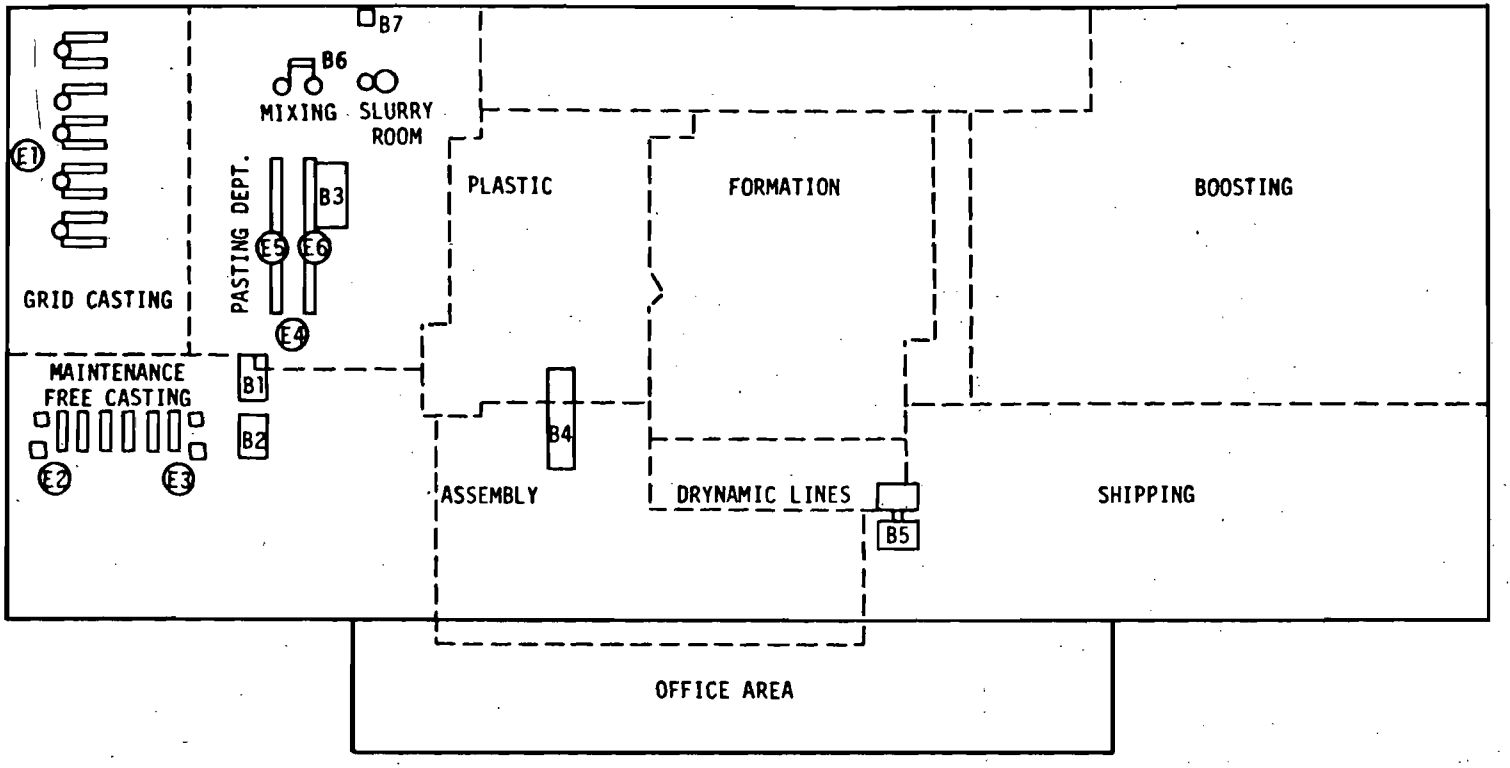


Figure 3-1. Overview of GNB facility.

TABLE 3-1. GENERAL EMISSION SOURCE INFORMATION

GNB ID	Area name	Fan type	Filter type	Annual operating hours	Florida DER Permit No.
E1	Pot Hood	TABD Model 1-64266	NA	5,000	NR
E2	Pot Hood	McMaster 2097R32	NA	5,000	NR
E3	Pot Hood	McMaster 2097R32	NA	5,000	NR
E4	Tray Exh. 1	Barry 623	NA	4,000	NR
E5	Paste Oven POS	NR	NA	4,000	NR
E6	Paste Oven NEG	NR	NA	4,000	NR
B1	Pasting/ Parting	Champion # 245-CIII-A9	Carb #288 CT2	4,000	A048-38740
B2	Assembly	Champion # 300-III-A9	Carb #288 CT2	4,000	A048-38739
B3	Casting, QC,Mixing	NR	Reumelin 2750	5,000	A048-30032
B4	Assembly	NR	Reumelin 4580	4,000	A048-30031
B5	Assembly	Champion # 365-CIII-A9	(2) Carb #288-CT2	4,000	A048-38738
B6	Bulk Oxide	No fan	FlexKleen 114-UK-49	1,000	A048-30440
B7	Central Vac	Hoffman 4208A	Hoffman #481	4,000	NR

NA = Not applicable.
NR = Not reported.

CASTING, QC LAB, AND PASTE MIXING

The specialty casting, QC Lab, and paste mixing areas are vented to a common baghouse (B3). In the paste mixing operation, lead oxide, sulfuric acid, water, and minor constituents are mixed together to form either a positive or negative paste in a batch-type operation. The paste consists of approximately 80 percent lead oxide. During the first and second emission tests, 1,900 lb/h of positive paste and 1,970 lb/h of negative paste were mixed. For the third test 3,050 lb/h of positive paste and 2,070 lb/h of negative paste were mixed.

No process data were recorded for the specialty casting or QC Lab areas; however, the specialty casting was operating during the second test.

PLATE PASTING AND PARTING OPERATIONS

Four emission sources are associated with the plate pasting and parting operations. Three of these emission sources (E5, E6, and B1) were tested during this test program; the other source (E4) was tested previously .

Source E5 exhausts emissions from the positive plate pasting line. During the emission tests, Source E5 processed 7,450 plates per hour. Emissions from the negative plate pasting line are exhausted through Source E6, which processed 7,600 plates per hour during the emission tests.

Baghouse B1 is used to control emissions from both pasting lines and the parting operations. Plate parting is merely stacking either positive or negative plates. During the emission tests, 9,670 positive plates and 10,080 negative plates per hour were pasted and subsequently parted.

ASSEMBLY AREAS

Baghouses B2, B4, and B5 control the exhaust from the assembly areas. Baghouses B2 and B4 were tested during this program; B5 was tested previously.

The emission sources from the assembly areas are the burning machines. During the first and second exhaust tests on Baghouse B2, 16 batteries were processed each hour on the No. 7 and No. 8 National Burning Machines (NBM); during the third test, 47 batteries per hour were processed on these machines.

The No. 5 and 6 NBM and a Tiegel burn machine are exhausted through Baghouse B4. During the emission tests, 53 batteries per hour were processed through the No. 5 and 6 NBM, and 35 batteries were processed per hour through the Tiegel burn machine.

BULK LEAD OXIDE LOADING

The GNB facility receives bulk lead oxide two to four times a week. The lead oxide is pneumatically fed to a hopper, which feeds the paste mixing operations. Exhaust gases are controlled by Baghouse B6.

Tests were conducted on three different days because only 1½ to 2 hours are needed to unload the bulk lead oxide. The amounts of lead oxide received on the three days were 51,920, 51,200, and 51,480 lb, respectively.

CENTRAL VACUUM

A central vacuum system is in periodic use at GNB to assist in small cleanup jobs in all areas of the plant. Emissions from this central vacuum system are controlled by Baghouse B7. No process data were recorded.

P 408 533 330

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. T. E. Hatterschide	
Street and No.	
P.O., State and ZIP Code	
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 11/21/85	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983

SENDER: Complete items 1, 2, 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 service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

ST PAUL MN NOV 25 1985 9720 BOX SECTION

3. Article Addressed to:
Mr. T. E. Hatterschide
GNB, Incorporated
P. O. Box 64100
St. Paul, Minnesota 55164-0100

4. Type of Service:	Article Number
☐ Registered ☑ Insured ☒ Certified ☐ COD ☐ Express Mail	P 408 533 330

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)*

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

November 20, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. T. E. Hatterschide
Director of Manufacturing and Engineering
GNB Incorporated
Post Office Box 64100
St. Paul, Minnesota 55164-0100

Dear Mr. Hatterschide:

Re: Air Pollution Permits for GNB Incorporated, Orlando, Florida Battery Manufacturing Plant

The department has made a preliminary review of the seven applications for permits for your Orlando, Florida plant. We need more information to process these applications. Please complete the applications by supplying the information requested below.

General

1. When was this plant built and have any modifications which increased lead emissions occurred since January 14, 1980?

2. Please provide a process flow sheet that shows each individual piece of process equipment (bulk lead oxide storage tank, lead paste mixing equipment, all casting ovens, scrap ovens, plate stacking equipment, plate burning equipment, element assembly equipment, Hoffman vacuum system, etc.), raw material flow (TPH lead), duct system for air pollution control equipment, and note which application covers the equipment. Also, note which equipment each emission standard listed in the Federal Register for this source applies to. Emission standards have been assigned to 13 emission points at this plant (See November 1, 1985 Federal Register, Page 45606). Please account for these emissions and any other emissions that occur at this plant, including the sulfuric acid mist emissions from the battery assembly operation.

3. Drawing D-5028 listed seven filters for the plant. Please indicate which stack each filter is on and also list any other air pollution control devices used at the plant.

4. Orange County is designated nonattainment for ozone. What are the maximum volatile organic compounds (VOC) emissions from this plant?

5. In several applications (stacks E4, E5, and E6), the actual emissions were estimated to be higher than the allowable emissions (Section III C). Please clarify this situation or propose air pollution control equipment and a construction schedule for these sources.

Stack El - Pot Furance Exhaust Hood (file No. 111462)

1. The application is for five gas fired pots. Drawing D-3008 shows 8 pots connected to the duct that discharges through stack El. Please clarify the number of pots used in this plant and which stack they discharge to.

2. Please furnish a copy of Table 15-1 from AP-42 that listed the emission factor of 0.21 lb lead/1000 batteries. Table E-1 listed a factor of 0.21 lb lead/ton lead produced. The emission 4) factors in the August, 1982, edition of AP-42 are higher than the one used in the calculations on Supplement to Section V attachment to this application. If you are unable to document the emission factor of 0.21 lb lead/1000 batteries, please recalculate the emissions with an appropriate emission factor. Also, producing 131.25 batteries per hour for 5,000 hours per year will result in an annual production of 656,250 batteries, not 626,250 as shown in the application.

Stack E-2 and E-3 Electric Pot Furnace (File No. 111463 and 11146

1. Are the electric pot furnaces also called scrap oven No. 1 or No. 2?

2. If the emission factor of 0.21 lb lead/1000 batteries cannot be documented, please recalculate the lead emissions using the appropriate emission factors.

Stack E-4 Plate Pasting Operation (File No. 111465)

1. The calculations account for 1/3 of the emissions (92.6 lb Pb/1000 batteries and 14.6 lb pb/1000 batteries) from the three process operation. Please account for the other 2/3 of the emissions.

Stack E-5 and E-6 Flash Paste Drying Oven (File No. 11466 and 111467)

1. Please state which stack (E-5 or E-6) goes with each oven (No. 1 and 2).

2. Describe how the solid waste from the ovens is collected and reused.

3. Does either oven have air pollution control equipment?

4. As only 1/6 of the estimated emissions from a three process operation was accounted for in the application, please address what happens to the other 5/6 of the emissions.

Stack B-7 - Hoffman Vacuum System

1. What equipment does the Hoffman vacuum system control?

2. What is done with the material collected by the vacuum system?

3. What is the basis of the maximum actual lead and particulate matter emissions for this system?

As soon as we receive the above requested information, we will resume processing your applications. If you have any questions regarding the information requested, please call Willard Hanks at (904) 488-1344 or write to me at the department's Tallahassee address.

Sincerely,

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

CF/WH/p

Attach: 40 CFR 60, Page 45606

cc: Tom Sawicki
John Bottorf, Jr.

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(3) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead—Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source name	Lead emission rates—lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
Total	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(4) Chloride Metals, US. 41/Raleigh Street, Tampa, FL.

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source name	Lead emission rates—lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping—Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping—Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
Total	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL. Lead—Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source name	GNB ID #	Lead emission rates—lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2168
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vaccum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
Total		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The following sources shall be limited to operating 4000 hours per year: Pasting/Parting, GNB ID #B1; Assembly,GNB ID #B2; Assembly, GNB ID #B4; Assembly, GNB ID #B5; Central Vaccum, GNB ID #B7; Tray Exhaust, GNB ID #E4; Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(iv) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(v) The following sources shall be limited to operating 5000 hours per year: Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL. Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, since their current permit expired December 31, 1984. This is pursuant to Florida Administration Code 172.530, Source Reclassifications, and 17–4.09, Renewals.

[FR Doc. 85–26117 Filed 10–31–85; 8:45 am]
BILLING CODE 6560–50–M

40 CFR Part 52

[A-5-FRL-2914-8]

Approval and Promulgation of Implementation Plans; Ohio

AGENCY: Environmental Protection Agency (USEPA).

ACTION: Final rulemaking.

SUMMARY: In a September 25, 1984 (49 FR 37642), Federal Register notice, USEPA proposed to approve a revised emission limitation for the PPG Barberton plant in Summit County, Ohio, as a revision to the Ohio State Implementation Plan (SIP) for sulfur dioxide (SO_2). Since that time, USEPA has been informed that PPG has permanently terminated the operations of the plant. Consequently, the State of Ohio withdrew its request for a revised emission limit for PPG.

USEPA is revising the SO_2 emission limitation in the Ohio federally promulgated SIP to adequately reflect the shutdown of the plant. The federal SIP for PPG will now consist of a 0.0 lbs/MMBTU for the Barberton plant's coal-fired steam generating units.

DATE: This action will be effective December 31, 1985, unless notice is received within 30 days that someone wishes to submit adverse or critical written comments, or requests an opportunity for oral presentation of data, views or arguments.

ADDRESSES: The docket for this revision (#5A–85–2) is on file at the following locations, and may be inspected and copied during normal business hours. (It is recommended that you telephone Debra Marcantonio, at (312) 886–6088, before visting the Region V office).

U.S. Environmental Protection Agency, Region V, Air and Radiation Branch, 230 South Dearborn Street, Chicago, Illinois 60604

U.S. Environmental Protection Agency, Central Docket Section, West Tower Lobby, Gallery 1, 401 M Street SW., Washington, D.C. 20460.

Written comments and request for a public hearing should be sent to: Gary Gulezian, Chief, Regulatory Analysis Section, Air and Radiation Branch (5AR–26), U.S. Environmental Protection Agency, Region V, Chicago, Illinois 60604.

FOR FURTHER INFORMATION CONTACT: Debra Marcantonio, Air and Radiation Branch (5AR–26), Environmental Protection Agency, Region V, Chicago, Illinois 60604, (312) 886–6088.

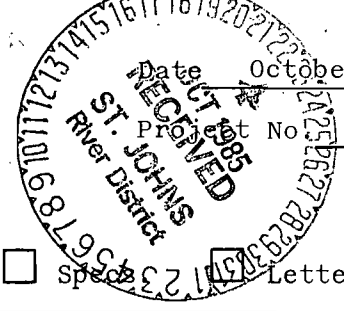
SUPPLEMENTARY INFORMATION: On August 27, 1976, USEPA promulgated regulations establishing a State Implementation Plan (SIP) for the control of SO_2 in the State of Ohio (42 FR 36342). Revisions to the Summit County regulations for most sources were published December 5, 1979 (44 FR 69928), but did not include PPG's Barberton, Ohio, plant. USEPA promulgated new regulations for the PPG facility on July 25, 1980 (45 FR 49550). On January 27, 1981, USEPA disapproved the proposed SIP limitations that Ohio had submitted for Summit County, including the PPG facility (46 FR 8481).

SEABURY-BOTTORF ASSOCIATES, INC.

CONSULTING ENGINEERS ANALYTICAL LABORATORY

4595 PARKBREEZE CT. ORLANDO, FLORIDA 32808-1057 305-298-0846

TRANSMITTAL



TO: ST. JOHNS RIVER DISTRICT
FLORIDA DEPT. OF ENVIRONMENTAL REGULATION
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Date October 23, 1985

Project No. 115-7- GNB INCORPORATED

☐ Tracings ☐ Prints ☐ Shop Drawings ☐ Specifications ☐ Letters ☒ Other

No. Cys.	Numbered	Date	Description
4	E1	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226854 (Exhaust Hood for 5 Gas Fired Lead Pots feeding 9 Casting Machines)
4	E2	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226855 (Exhaust Hood for one electric pot furnace serving 3 Casting Machines)
4	E3	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226856 (Exhaust Hood for one Electric Pot Furnace serving 3 Casting Machines)
4	E4	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226857 (Tray Exhaust serving Plate Pasting Operation)
4	E5	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226858 (Exhaust of Gas Fired Flash Paste Drying Oven)
4	E6	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226859 (Exhaust of Gas Fired Flash Paste Drying Oven)
4	B7	10/8/85	APPLICATION TO CONSTRUCT AIR POLLUTION SOURCES w/Attachments including Ck.#226860 (Hoffman Model 4208A Vacuum System with a Hoffman Model 481 Vacumatic Separator)

REMARKS:

SEABURY-BOTTORF ASSOCIATES, INC.

By John W. Bottorf, Jr., P. E.

COPY TO: Mr. T. E. Hatterschide (w/cy. encls.)
Mr. Donald Groff
Mr. Clay Shimeall (w/cy. encls.)

	Actual	Potential
Tray	2.13	4.67
Oven	.53	1.16
Oven	.53	1.16
Hoffman	.02	.04
Hood	.02	.04
Casting	.07	.03
Casting	.02	.04
	3.32 TPY	7.14 TPY

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111462
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(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:GNB/POT FURNACE EXHAUST HOOD (9)
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096750

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 96750

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from J M B Battista Date Oct 23, 1985

Address P.O. Box 43140, St Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address _____

Source of Revenue None

Revenue Code 001031 CE 226854 Application Number AC48-111462

By K Sulbek

AC 44-111462

E1

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

OCT 23 1985

SAINT JOHNS RIVER DISTRICT

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

OCT 1985 ST. JOHNS River District

APPLICATION TO ~~OPERATE~~ CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Pot Furnace Exhaust Hood [ ] New[1] [X] Existing[1]

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

COMPANY NAME: GNB INCORPORATED COUNTY: Orange

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) Exhaust Hood for 5 Gas Fired Lead Pots feeding 9 Casting Machines.

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28° 23' 58"N Longitude 81° 24' 02"W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/8/85 Telephone No. 612/681-5227

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

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

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

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

Signed John W. Bottorf, Jr.

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)

Florida Registration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

SECTION II: GENERAL PROJECT INFORMATION

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

This project consists of an Exhaust Hood serving five (5) pot furnaces that are used to supply molten lead to the 9 grid casting machines. No pollution control devices are used. The project should result in full compliance with source specific regulations.

B. Schedule of project covered in this application (Construction Permit Application Only)
Equipment has been installed and in use for quite a while.
Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 6 ; wks/yr 52 ; if power plant, hrs/yr_____; if seasonal, describe: Not seasonal

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

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

   a. If yes, has "offset" been applied? _____

   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. No

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

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

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

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

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		
Refined Lead	Lead	7.5×10^{-4}	3412.5	
	Particulate	2.9×10^{-3}		

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

1. Total Process Input Rate (lbs/hr): 3412.5#/Hr. of Lead

2. Product Weight (lbs/hr): 3412.5#/Hr. of Cast Lead Grids

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	0.0263	0.07	See attached SIP Document	0.1190	241.5	0.03	
Particulate	1.37	3.42	See attached SIP Document	5% Opacity	11,984	5.99	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Exhaust Fan	Lead	N/A		
Tabd Model 1-64266	Particulate	N/A		

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	778 CFH	895 CFH	0.92

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

Fuel Analysis:

Percent Sulfur: <0.01% Percent Ash: <0.01%

Density: 0.044 Lb./CF ~~lbs/gal~~ Typical Percent Nitrogen: 0.49%

Heat Capacity: 1027 BTU/CF ~~BTU/lb~~ N/A 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 dispoaal.

No solid or liquid wastes are generated in this process.

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

Stack Height: 33 ft. Stack Diameter: 2.5 ft.

Gas Flow Rate: 14,600 ACFM 10,220 DSCFM Gas Exit Temperature: 100 °F.

Water Vapor Content: 5 % Velocity: 34.76 FPS

SECTION IV: INCINERATOR INFORMATION N/A

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conatruction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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.

GNB Incorporated

Supplement to section V, DER Form 17-1.202(1)

Potential Emissions Calculations

Calculation Basis: Potential emissions calculations are based on a production rate of 131.25 batteries/hour or 1.71 tons/hour of lead.

Potential operating hours = 8760 hours/year

Potential yearly production = 1149750 batteries/year

= 14979.6 tons of lead/year

Particulate = 0.8 lb/ton x 14979.6 ton of lead/year

= 11984 lb/year or 5.99 ton/year or 1.37 lb/hour

Lead = 0.21 lb/1000 batteries x 1149.75 1000 batteries

= 241.45 lb/year or 0.12 ton/year or 0.03 lb/hour

Actual Emissions Calculations

Calculation Basis: Actual emissions calculations are based on a production rate of 131.25 batteries/hour or 1.71 tons/hour of lead. The facility operates approximately 5000 hours/year.

Proposed operating schedule = 16 hr/day 6 day/wk 52 wk/yr

= 5000 hours/year

Actual yearly production = 626250 batteries/year

= 8550 tons of lead/year

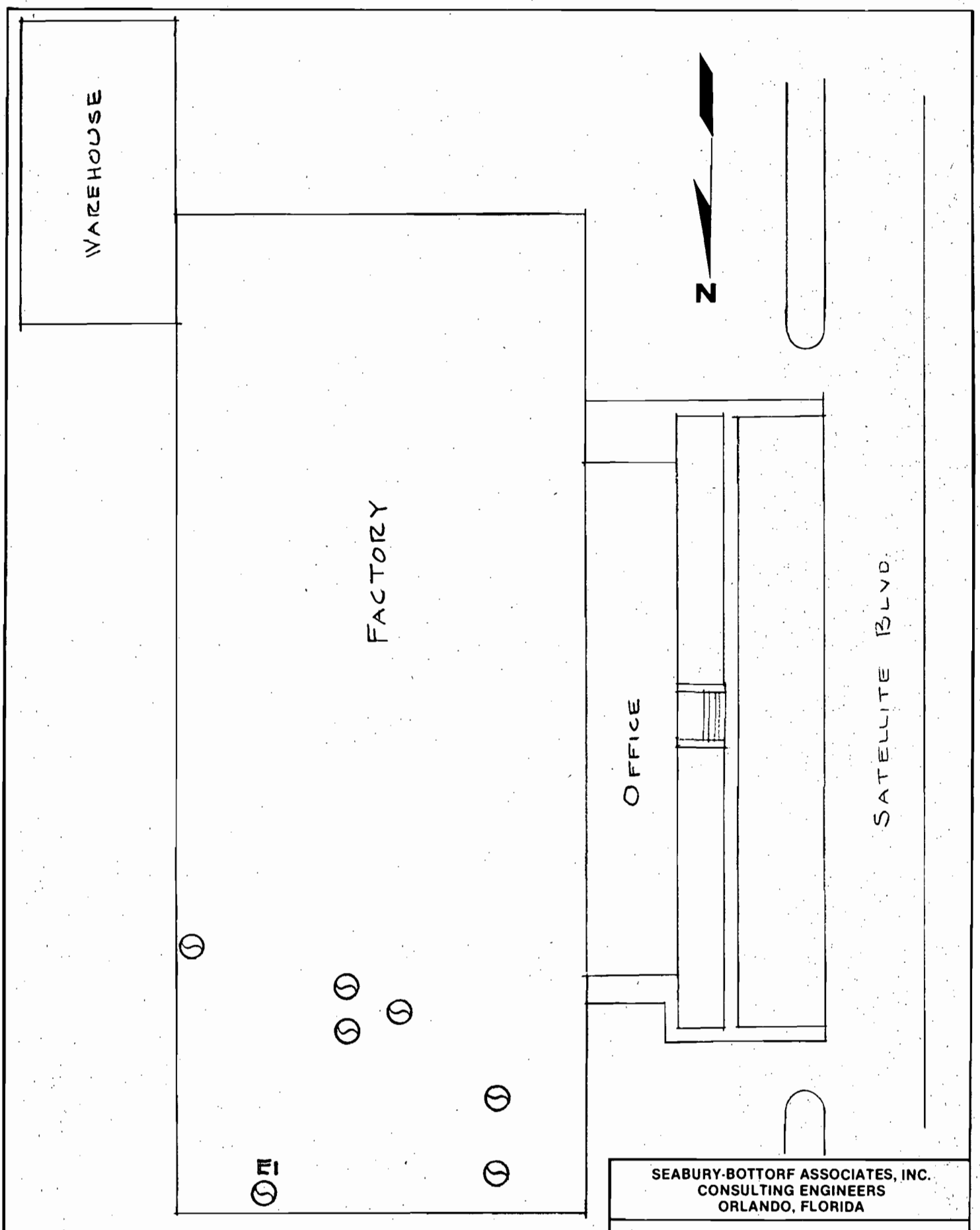
Particulate = 0.8 lb/ton x 8550 tons of lead/year

= 6840 lb/yr or 3.42 ton/year or 1.37 lb/hour

Lead = 0.21 lb/1000 batteries x 626.25 1000 batteries

= 131.51 lb/year or 0.07 ton/year or 0.0263 lb/hour

Particulate Emission Factors From AP-42,table 7.11-1.
Lead Emission Factors From AP-42,table 7.15-1.

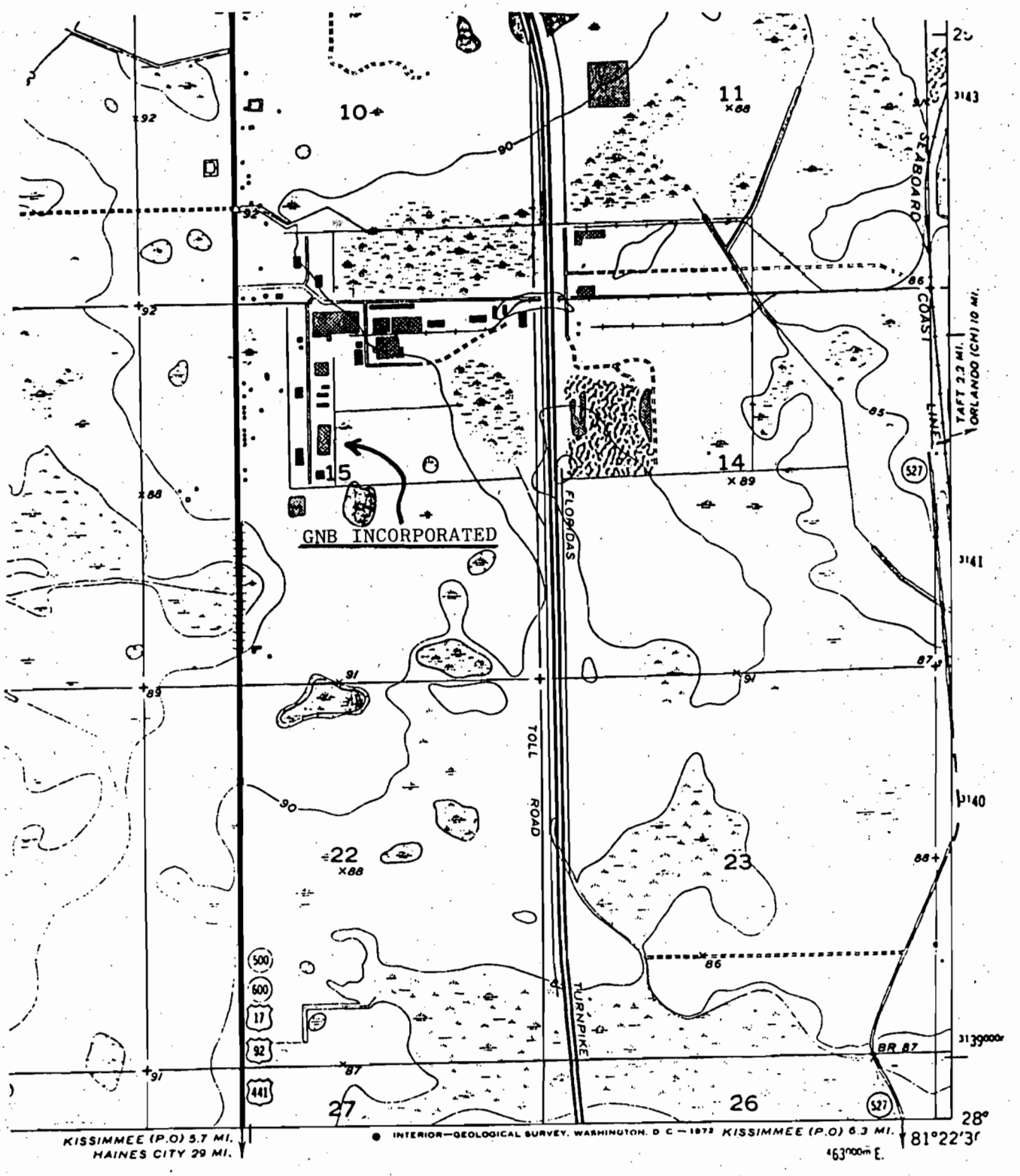


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

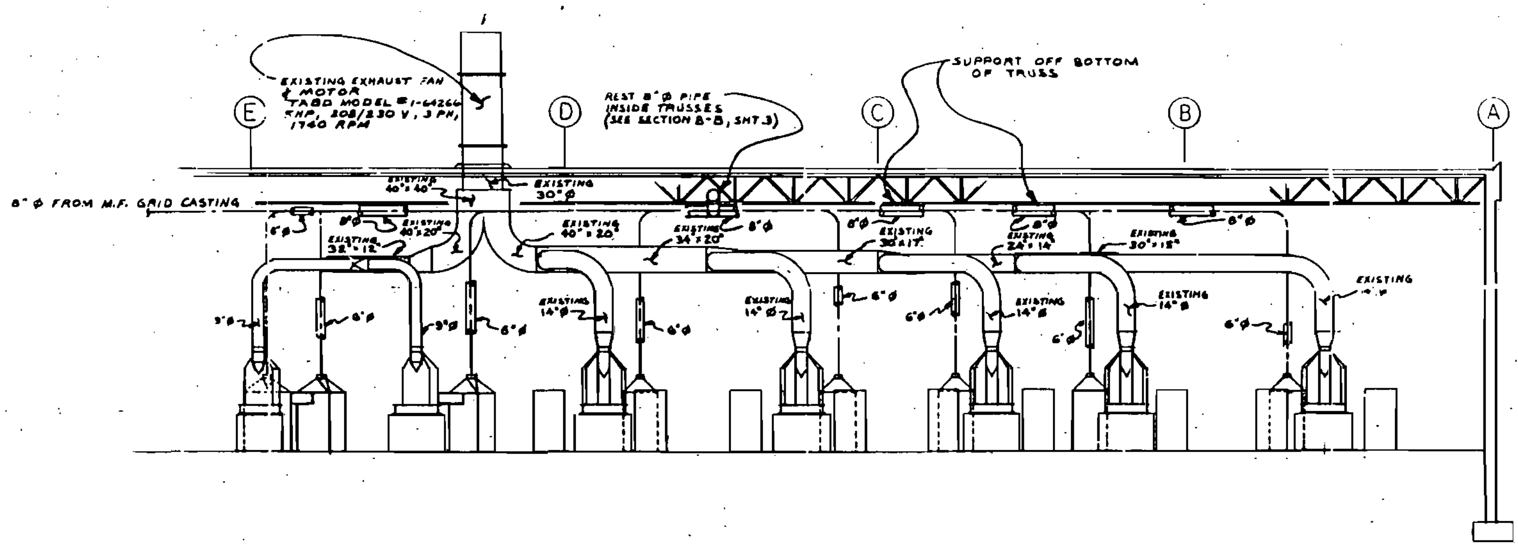
GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES.	DWN.	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.



SECTION A-A

GOULD

ANTIMONY GRID CASTING VENTILATION

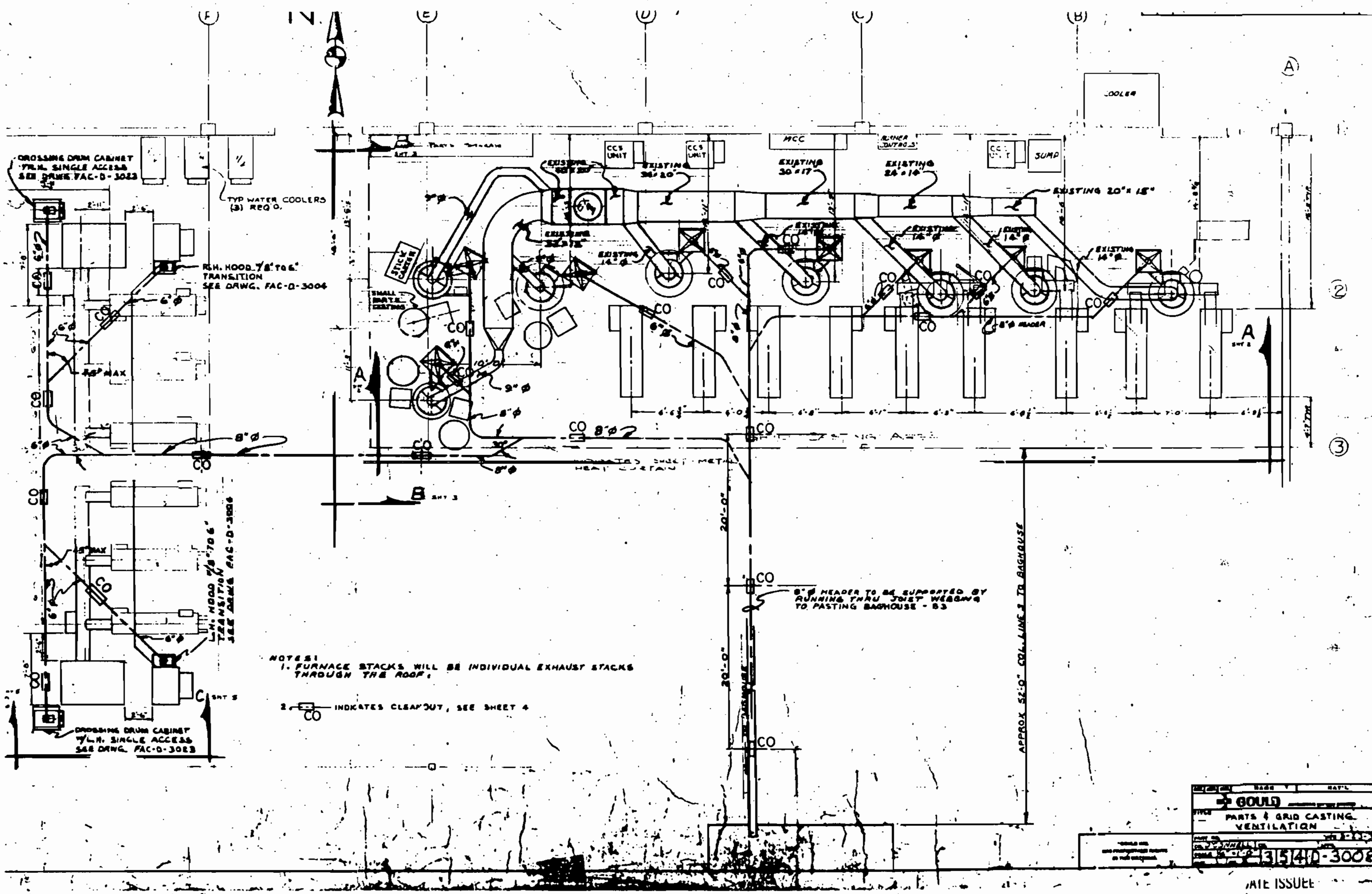
DATE 5-23-80

SCALE 1/4" = 1'-0"

3 5 4 D-3008

ATE ISSUEL
AUG 28 1985

Best Available Copy



NOTES:
1. FURNACE STACKS WILL BE INDIVIDUAL EXHAUST STACKS THROUGH THE ROOF.

2. CO INDICATES CLEANOUT, SEE SHEET 4

GOULD

PARTS & GRID CASTING VENTILATION

35 4D-3008

DATE ISSUED
AUG 29 1985

EX 1

1. HOOD TYPES A & B ARE THE SAME EXCEPT FOR PUMP PLATE SEE SHT 2
2. CABINET & HOOD SHOULD BE WELDED AIR TIGHT UNLESS NOTED
3. USE 12 GA SHEET STEEL UNLESS NOTED
4. PAINT ONE COAT PRIMER & ONE COAT HIGH TEMP ALUMINUM REPAINT ALL AREAS BURNED OFF W/ FIELD WELDING
5. BOLT ANGLE RING TO POT WITH 3-1/2"ø STUDS WELDED TO CRUCIBLE EQUAL SPACED AROUND POT

A		REV'D POT HOOD SHAPE	
B		REV SLOT E ADDED NOTES	
C		REV BOLT & NOTES	
D		ADDED PLATE TO CONED PLATE AND CHANGED MOUNTING	
E		WAS 574-D-3009	
F		CHG'D GA FROM 12 TO 10 ON CONE PLATE DETAIL	

SECTION E E
SCALE 1½"=1'-0"

PLAN VIEW
SCALE 1½"=1'-0"

SECTION DD (TYP.)
SCALE 3"=1'-0"

SECTION CC

CONE PLATE DETAIL

ELEVATION
SCALE 1½"=1'-0"

SECTION FF
SCALE ½"=1'-0"

SECTION AA
SCALE 1½"=1'-0"

SECTION BB
SCALE 1½"=1'-0"

3½"×2½" ANGLE ROLLED TO 31½" I.D. ALL AROUND POT CUT OFF FLANGE WHERE AT DOOR FIELD WELD POT HOOD SIDES TO ANGLE RING AFTER RING IS MOUNTED ON POT AND HOOD IS LINED UP WITH DROSSING CABINET

BOULD

LEAD POT EXHAUST HOOD ANTIMONY GRID CASTING

FAC D-3016

DATE ISSUED
AUG 29 1985

E-1

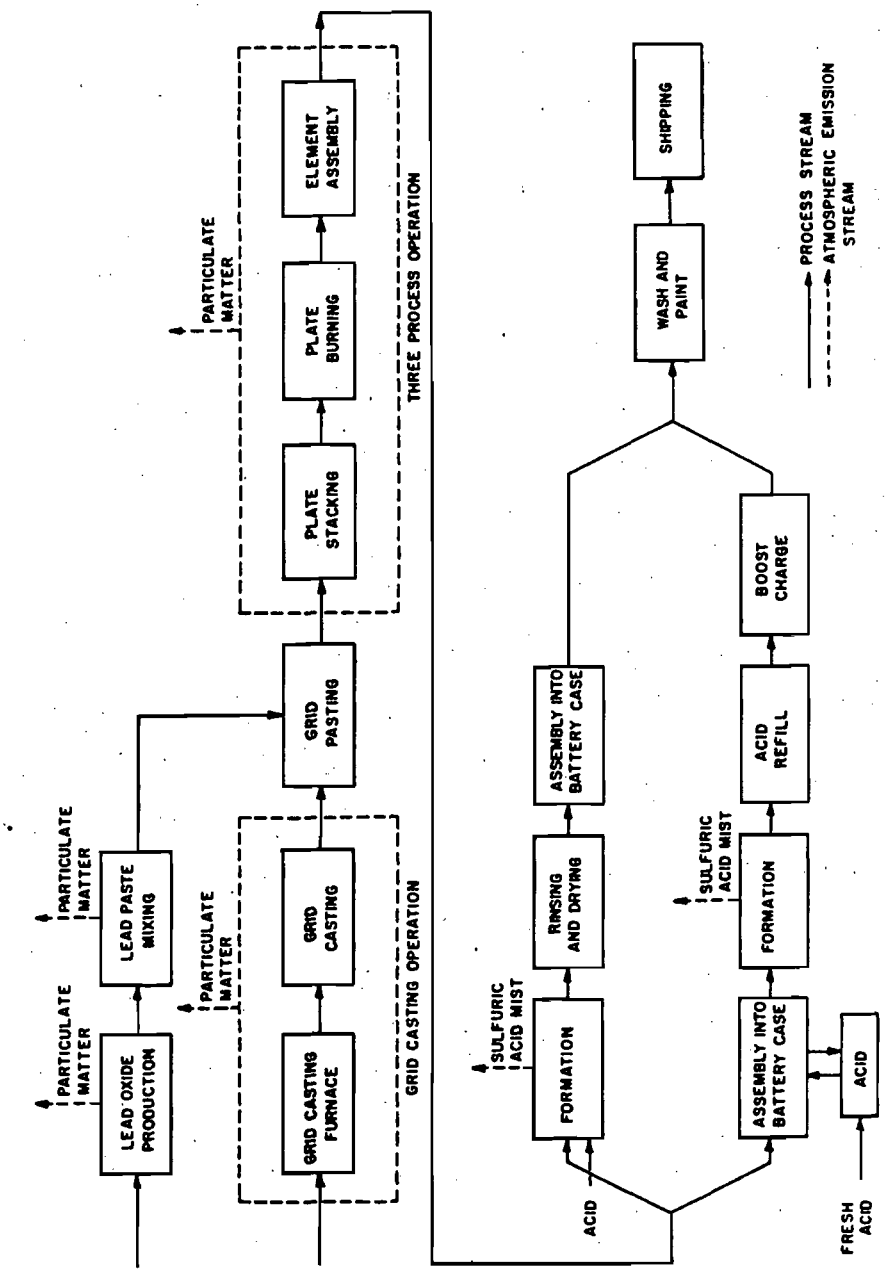
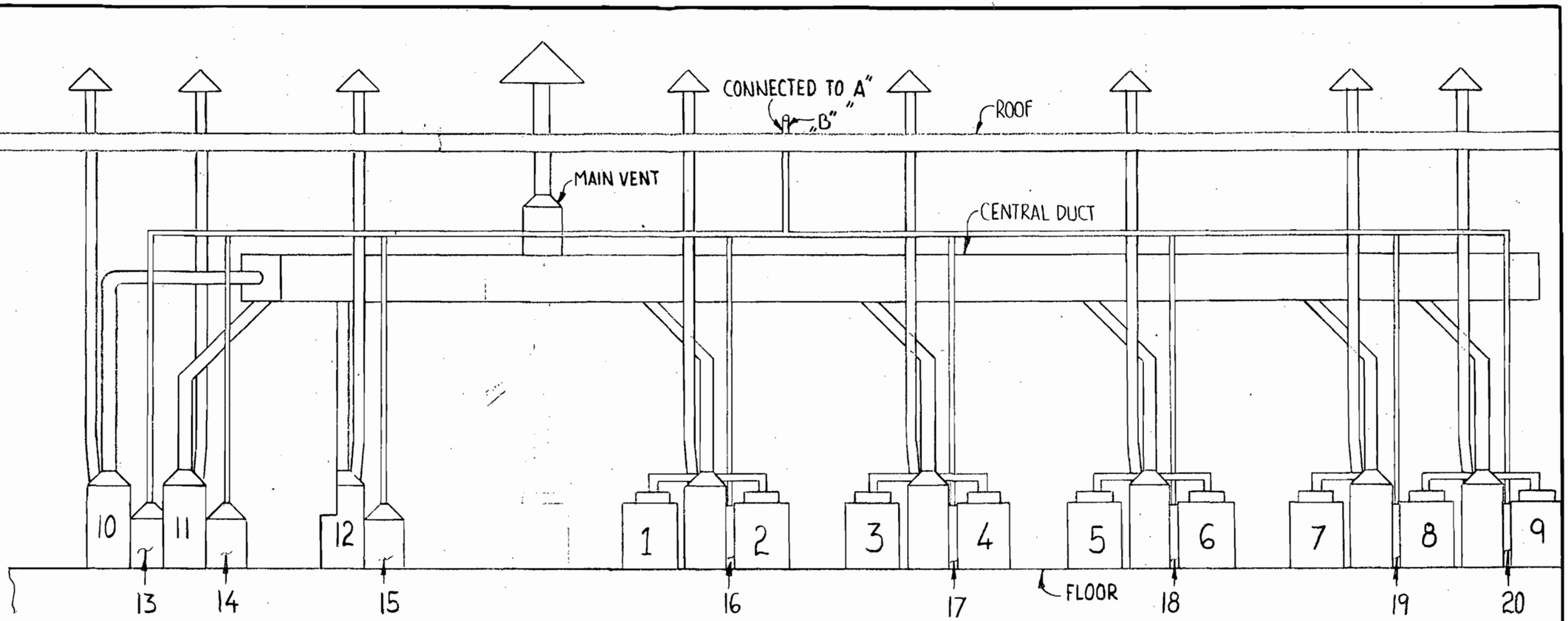


Figure 7.15-1. Process flow diagram for storage battery production.

AF 8358A



NORTH ELEVATION

1 THRU 9 - GRID CASTING OVENS
10 THRU 12 - PART CASTING OVENS
13 THRU 20 - SLUSH CONTAINERS

GRID, PART CASTING OVENS AND VENTILATION SYSTEM

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB - INCORPORATED
ORLANDO FLA.

DES.	DWN.	115-7-4
SCALE NONE	DATE 8-26-85	DRAWING NO.

7.11 SECONDARY LEAD SMELTING

Revised by William M. Vatavuk

7.11.1 Process Description [1-3]

In the secondary smelting, refining, and alloying of lead, the three types of furnace most commonly used are reverberatory, blast or cupola, and pot. The grade of metal to be produced–soft, semisoft, or hard–dictates the type of funace to be used.

Used for the production of semisoft lead, the reverberatory furnace reclaims this metal from a charge of lead scrap, battery plates, oxides, drosses, and lead residues. The furnace consists of an outer shell built in the shape of a rectangular box lined with refractory brick. To provide heat for melting, the charge gas or oil-fired burners are usually placed at one end of the furnace, and the material to be melted is charged through an opening in the shell.

The charge is placed in the furnace in such a manner as to keep a small mound of unmelted material on top of the bath. Continuously, as this mound becomes molten at the operating temperature (approximately 1250°C), more material is charged. Semisoft lead is tapped off periodically as the level of the metal rises in the furnace. The amount of metal recovered is about 50 to 60 kilograms per square meter of hearth area per hour.

A similar kind of furnace–the revolving (rotary) reverberatory–is used at several European installations for the recovery of lead from battery scrap and lead sulfate sludge. Its charge makeup and operating characteristics are identical to the reverberatories used in the United States, except that the furnace slowly revolves as the charge is heated.

The blast (cupola) furnace, used to produce "hard" lead, is normally charged with the following: rerun slag from previous runs (4.5 percent); cast-iron scrap (4.5 percent); limestone (3 percent); coke (5.5 percent); and drosses from pot furnace refining, oxides, and reverberatory slag (82.5 percent). Similar to an iron cupola, the furnace consists of a steel sheet lined with refractory material. Air, under high pressure, is introduced at the bottom through tuyeres to permit combustion of the coke, which provides the heat and a reducing atmosphere.

As the charge material melts, limestone and iron form an oxidation-retardant flux that floats to the top, and the molten lead flows from the furnace into a holding pot at a nearly continuous rate. The rest (30 percent) of the tapped molten material is slag, 5 percent of which is retained for later rerun. From the holding pot, the lead is usually cast into large ingots called "buttons" or "sows."

Pot-type furnaces are used for remelting, alloying, and refining processes. These furnaces are usually gas fired and range in size from 1 to 45 metric tons capacity. Their operation consists simply of charging ingots of lead or alloy material and firing the charge until the desired product quality is obtained.

Refining processes most commonly employed are those for the removal of copper and antimony to produce soft lead, and those for the removal of arsenic, copper, and nickel to produce hard lead.

Figure 7.11-1 illustrates these three secondary lead smelting processes.

7.11.2 Emissions and Controls [1,2]

The emissions and controls from secondary lead smelting processes may be conveniently considered according to the type of furnace employed.

With the reverberatory furnaces, the temperature maintained is high enough to oxidize the sulfides present in the charge to sulfur dioxide and sulfur trioxide, which, in turn, are emitted in the exit gas. Also emitted are such particulates (at concentrations of 16 to 50 grams per cubic meter) as oxides, sulfides, and sulfates of lead, tin,

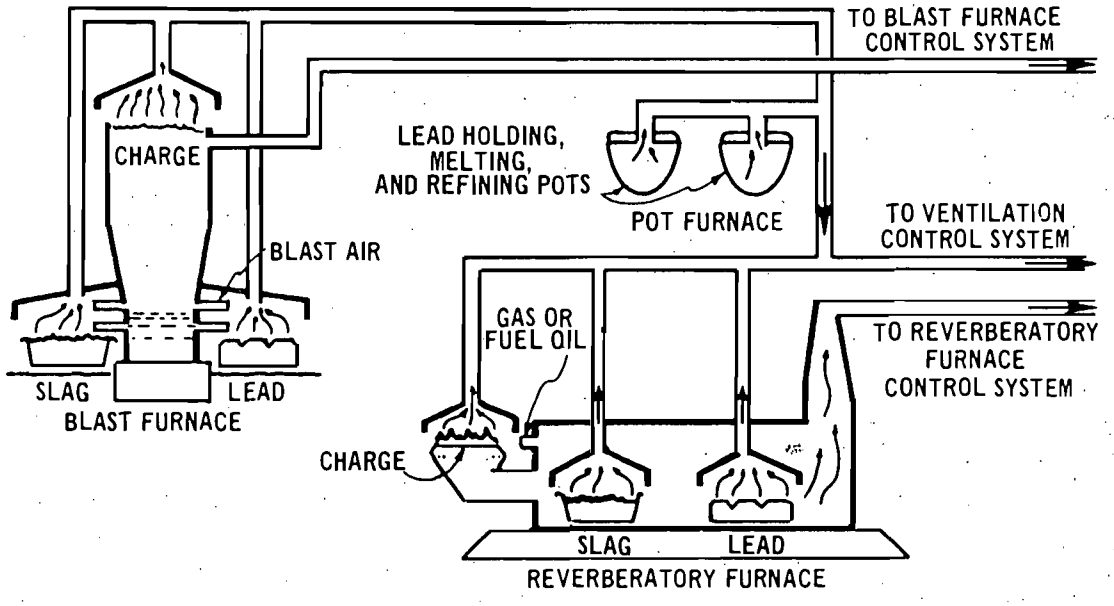


Figure 7.11-1. Secondary lead smelter processes.[4]

arsenic, copper, and antimony. The particles are nearly spherical and tend to agglomerate. Emission factors for reverberatory furnaces are presented in Table 7.11-1.

The most practical control system for a reverberatory furnace consists of a gas settling/cooling chamber and a fabric filter. This system effects a particulate removal of well in excess of 99 percent. Because of the potential presence of sparks and flammable material, a great deal of care is taken to control the temperature of the gas stream. In turn, the type of filter cloth selected depends upon stream temperature and such parameters as gas

Table 7.11-1. EMISSION FACTORS FOR SECONDARY LEAD SMELTING FURNACES WITHOUT CONTROLS[a]
EMISSION FACTOR RATING: B

Furnace type	Particulates		Sulfur dioxide	
	kg/MT	lb/ ton	kg/MT	lb/ton
Reverberatory[b]	73.5 (28.0 to 156.5)[c]	147 (56 to 313)	40.0 (35.5 to 44.0)	80 (71 to 88)
Blast (cupola)[d]	96.5 (10.5 to 190.5)	193 (21.0 to 381.0)	26.5 (9.0 to 55.0)	53.0 (18 to 110)
Pot[e]	0.4	0.8	Neg	Neg
Rotary reverberatory[f]	35.0	70.0	NA[g]	NA[g]

[a]All emission factors expressed in terms of kg/MT and lb/ton of metal charged to furnace.
[b]References 2, 5 through 7.
[c]Numbers in parentheses represent ranges of values obtained.
[d]References 2, 7 through 9.
[e]Reference 7.
[f]Reference 3.
[g]NA—no data available to make estimates.

Table E-1 (continued). UNCONTROLLED LEAD EMISSION FACTORS

AP-42 Section	Process	Emission factor[a,b] Metric	Emission factor[a,b] English	References
	Reverberatory furnace	0.006-0.7 kg/MT prod	0.012-0.14 lb/ton prod	1
	Electric induction furnace	0.005-.05 kg/MT prod	0.009-0.1 lb/ton prod	1
7.11	Secondary lead smelting			
	Reverberatory furnace	17 kg/MT Pb prod	34 lb/ton Pb prod	1,66
	Blast cupola furnace	22 kg/MT Pb prod	44 lb/ton Pb prod	1,66
	Refining kettles	0.1 kg/MT Pb prod	0.21 lb/ton Pb prod	46
7.15	Storage battery production (total)	8 kg/10^3 batteries	17.7 lb/10^3 batteries	1,55-58
	Grid casting	0.4 kg/10^3 batteries	0.9 lb/10^3 batteries	1,55-58
	Lead oxide mill (baghouse outlet)	0.05 kg/10^3 batteries	0.12 lb/10^3 batteries	1,55-58
	Three-process operations[c]	6.6 kg/10^3 batteries	14.6 lb/10^3 batteries	1,55-58
	Lead reclaim furnace	0.35 kg/10^3 batteries	0.77 lb/10^3 batteries	1,55-58
	Small parts casting	0.05 kg/10^3 batteries	0.10 lb/10^3 batteries	1,55-58
7.16	Lead oxide and pigment production			
	Barton pot (baghouse outlet)	0.22 kg/MT prod	0.44 lb/ton prod	1,61,62
	Calcining furnace	7 kg/MT prod	14 lb/ton prod	61
	Red lead (baghouse outlet)	0.5 kg/MT prod	0.9 lb/ton prod	1,54
	White lead (baghouse outlet)	0.28 kg/MT prod	0.55 lb/ton prod	1.54
	Chrome pigments	0.065 kg/MT prod	0.13 lb/ton prod	1.54
7.17	Miscellaneous lead products			
	Type metal production	0.13 kg/MT Pb proc	0.25 lb/ton Pb Proc	1,63
	Can soldering[d]	160 kg/10^6 baseboxes prod	0.18 ton/10^6 base-boxes prod	1
	Cable covering	0.25 kg/MT proc	0.5 lb/ton Pb proc	1,3,64

E,

File 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985

RECEIVED

FEB 27 1985

SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2;

Assembly, GNB ID #B3; Assembly, GNB ID #B4;

Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4;

Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:

Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.
Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111463
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:GNB/POT FURNACE EXHAUST HOOD (3)
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096751

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 96751

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from SMB Batteries Date Oct 23, 1985

Address P.O. Box 43140, St. Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address _____

Source of Revenue None

Revenue Code 001031 Ck 226855 Application Number AC48-111463

By K Seibert

AC 48-111463

E2

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
A. ALEXANDER
DISTRICT MANAGER

APPLICATION TO ~~OPERATE~~/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Pot Furnace Exhaust Hood [ ] New[1] [X] Existing

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

COMPANY NAME GNB INCORPORATED COUNTY: Orange

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) Exhaust Hood for one electric pot furnace serving 3 Casting Machines

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81° 24 ' 02 "W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/8/85 Telephone No. 612/681-5227

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

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

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

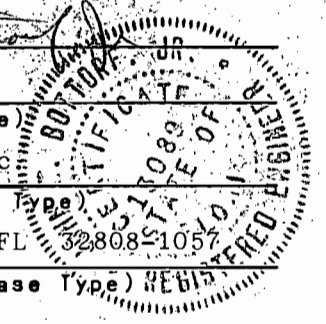
the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the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

Signed John W. Bottorf, Jr.

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)



Florida Registration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

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.

The project consists of one electric pot furnace with exhaust hood serving three grid casting machines. The project as described should result in full compliance with all applicable regulations.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E2

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 6 ; wks/yr 52 ;
if power plant, hrs/yr_____; if seasonal, describe: Not seasonal

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

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

   a. If yes, has "offset" been applied? _____

   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. No

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

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

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

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

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		
Refined Lead	Lead	7.5×10^{-4}	1225 Lb./Hr.	
	Particulate	2.9×10^{-3}		

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

1. Total Process Input Rate (lbs/hr): 1225 Lb./Hr. of Lead

2. Product Weight (lbs/hr): 1225 Lb./Hr. of Cast Lead Grids

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

Name of Contaminsnt	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	0.0092	0.02	See attached SIP Document	0.0096	80.5	0.04	
Particulate	0.49	1.225	See attached SIP Document	5% Opacity	4292	2.15	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Exhaust Fan	Lead	N/A		
McMaster 2097R32	Particulate	N/A		

E. Fuels

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

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

Fuel Analysis:

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 Characteristica (Provide data for each stack):

Stack Height: 33 ft. Stack Diameter: 1 ft.

Gas Flow Rate: 1300 ACFM 910 DSCFM Gas Exit Temperature: 100 °F.

Water Vapor Content: 5 % Velocity: 27.60 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Deacribe 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) Emiasions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach sll dats or statistical aummaries 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 rsqueated best available control technology.

GNB Incorporated

Supplement to section V, DER Form 17-1.202(1)

Potential Emissions Calculations

Calculation Basis: Potential emissions calculations are based on a production rate of 43.75 batteries/hour or 0.6125 tons/hour of lead.

Potential operating hours = 8760 hours/year

Potential yearly production = 383250 batteries/year

= 5365.5 tons of lead/year

Particulate = 0.8 lb/ton x 5365.5 ton of lead/year

= 4292 lb/year or 2.15 ton/year or 0.49 lb/hour

Lead = 0.21 lb/1000 batteries x 383.25 1000 batteries

= 80.5 lb/year or 0.04 ton/year or 0.01 lb/hour

Actual Emissions Calculations

Calculation Basis: Actual emissions calculations are based on a production rate of 43.75 batteries/hour or 0.6125 tons/hour of lead. The facility operates approximately 5000 hours/year.

Proposed operating schedule = 16 hr/day 6 day/wk 52 wk/yr

= 5000 hours/year

Actual yearly production = 218750 batteries/year

= 3062.5 tons of lead/year

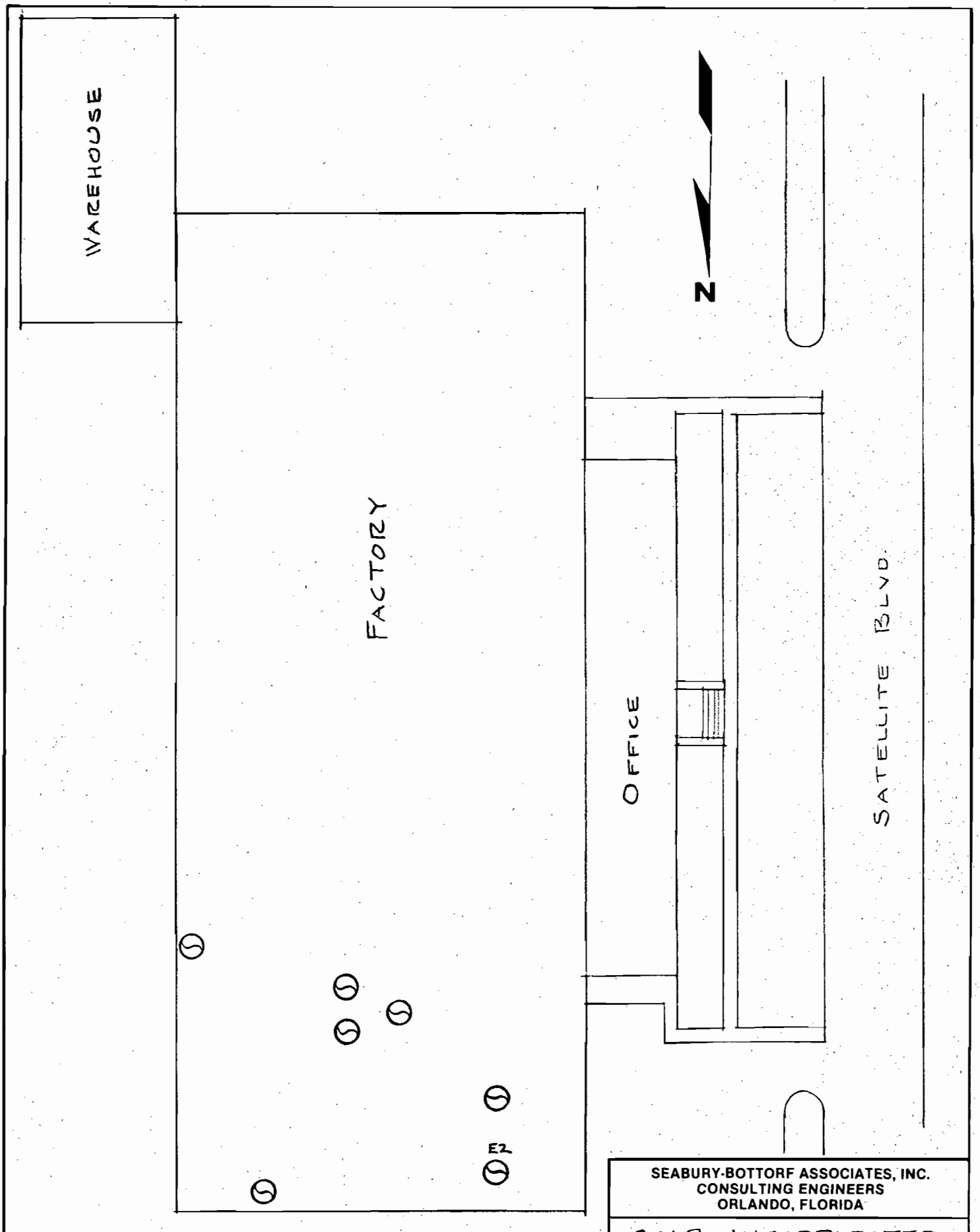
Particulate = 0.8 lb/ton x 3062.5 tons of lead/year

= 2450 lb/yr or 1.225 ton/year or 0.49 lb/hour

Lead = 0.21 lb/1000 batteries x 218.75 1000 batteries

= 45.94 lb/year or 0.02 ton/year or 0.0092 lb/hour

Particulate Emission Factors From AP-42,table 7.11-1.
Lead Emission Factors From AP-42,table 7.15-1.

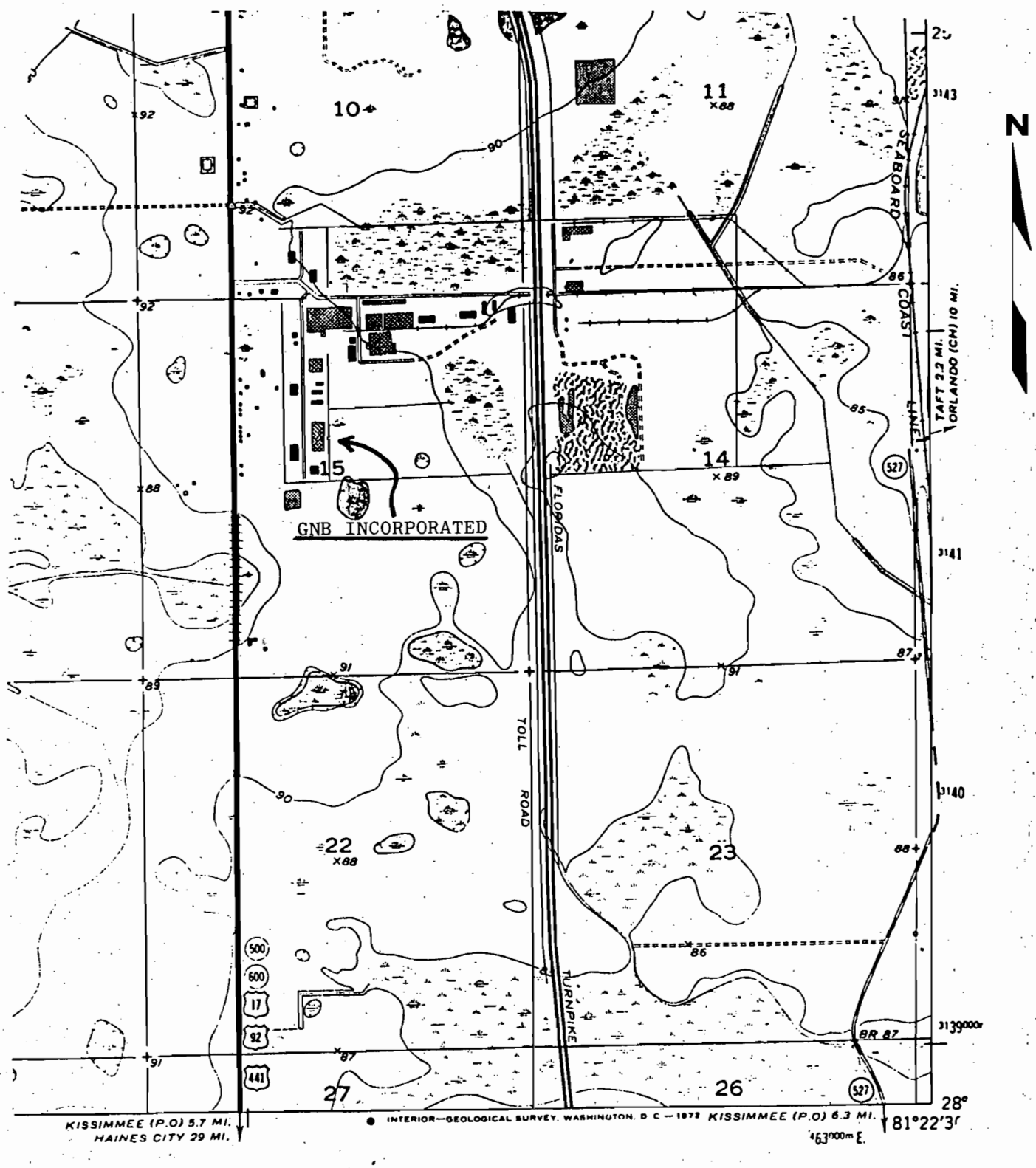


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES. ~	DWN. ~	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.

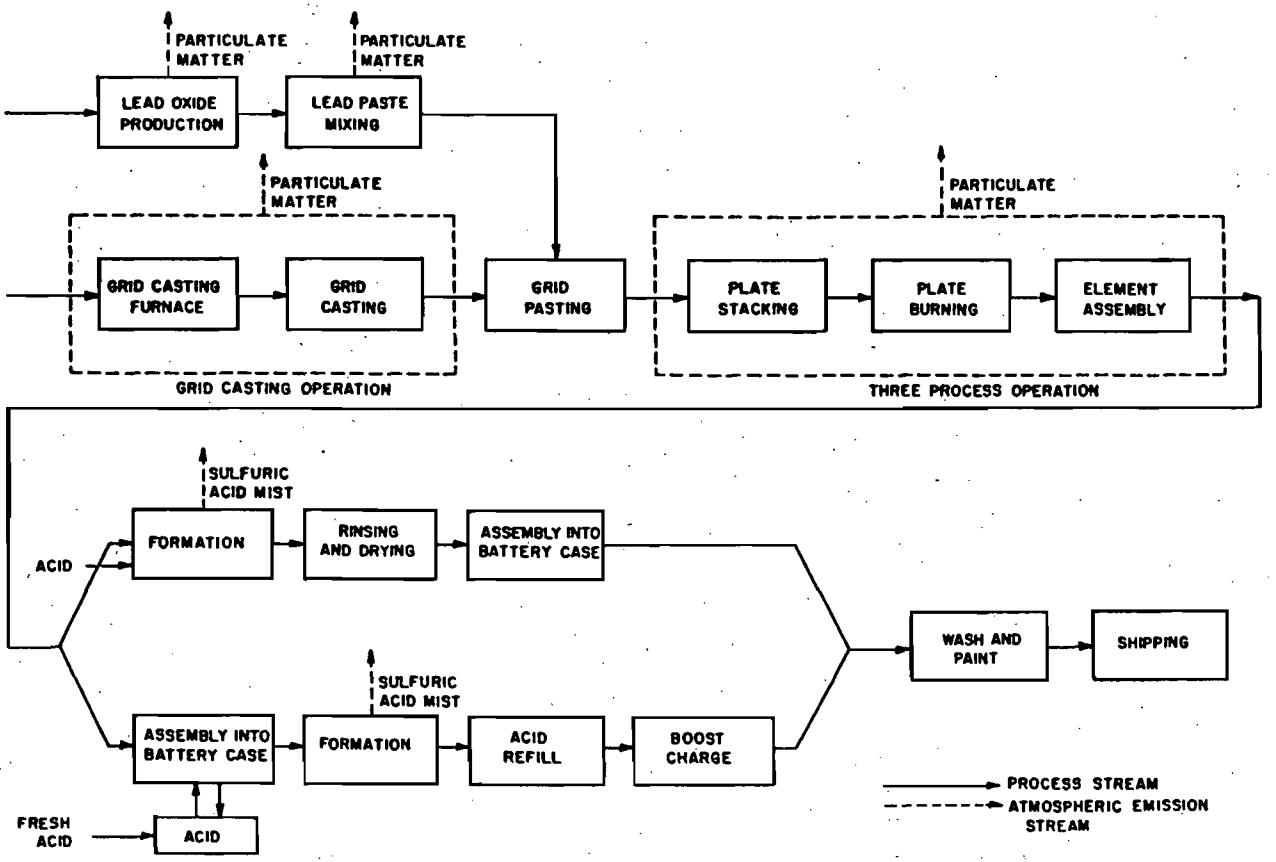
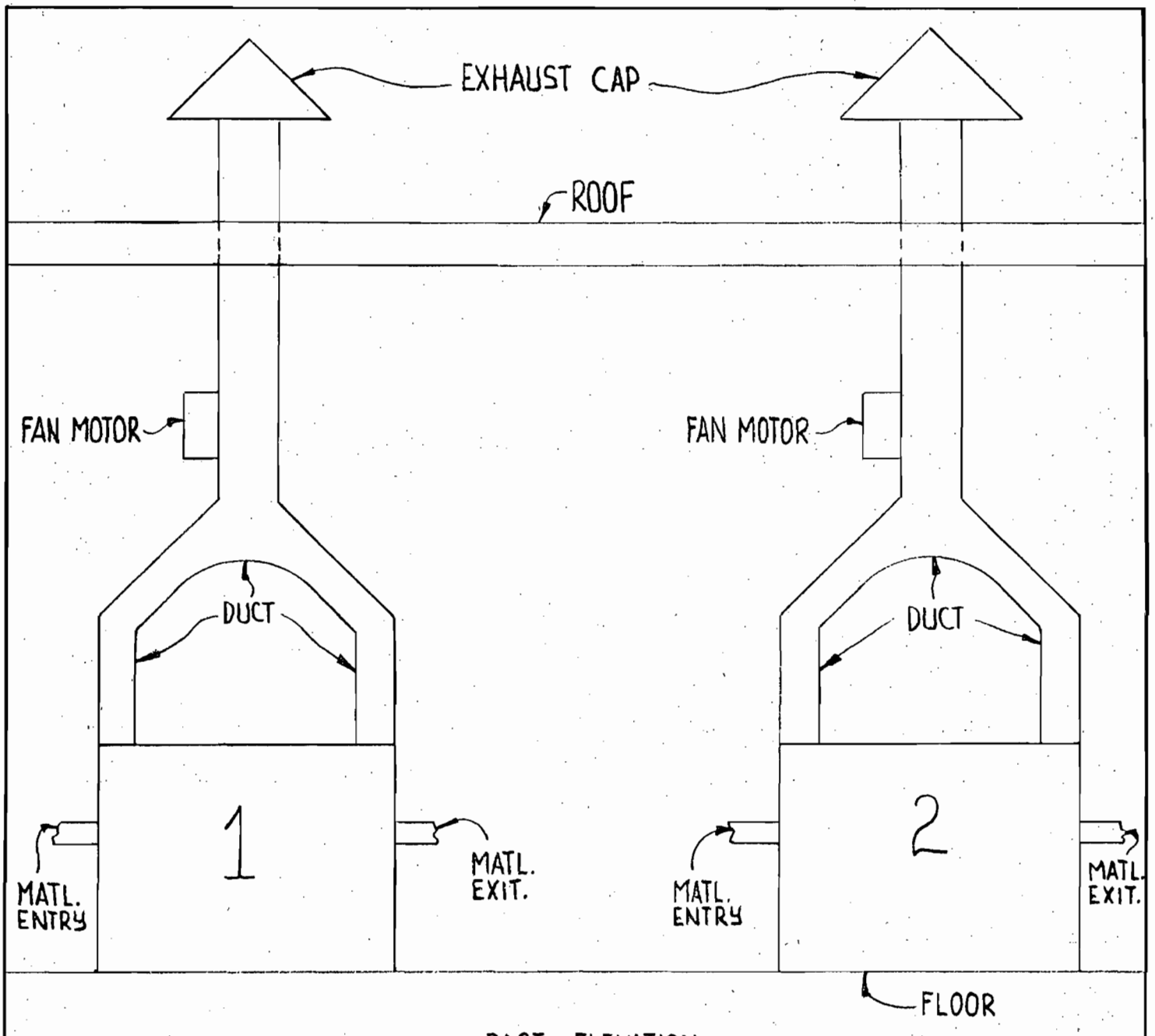


Figure 7.15-1. Process flow diagram for storage battery production.



EAST ELEVATION

1 AND 2 - SCRAP OVEN

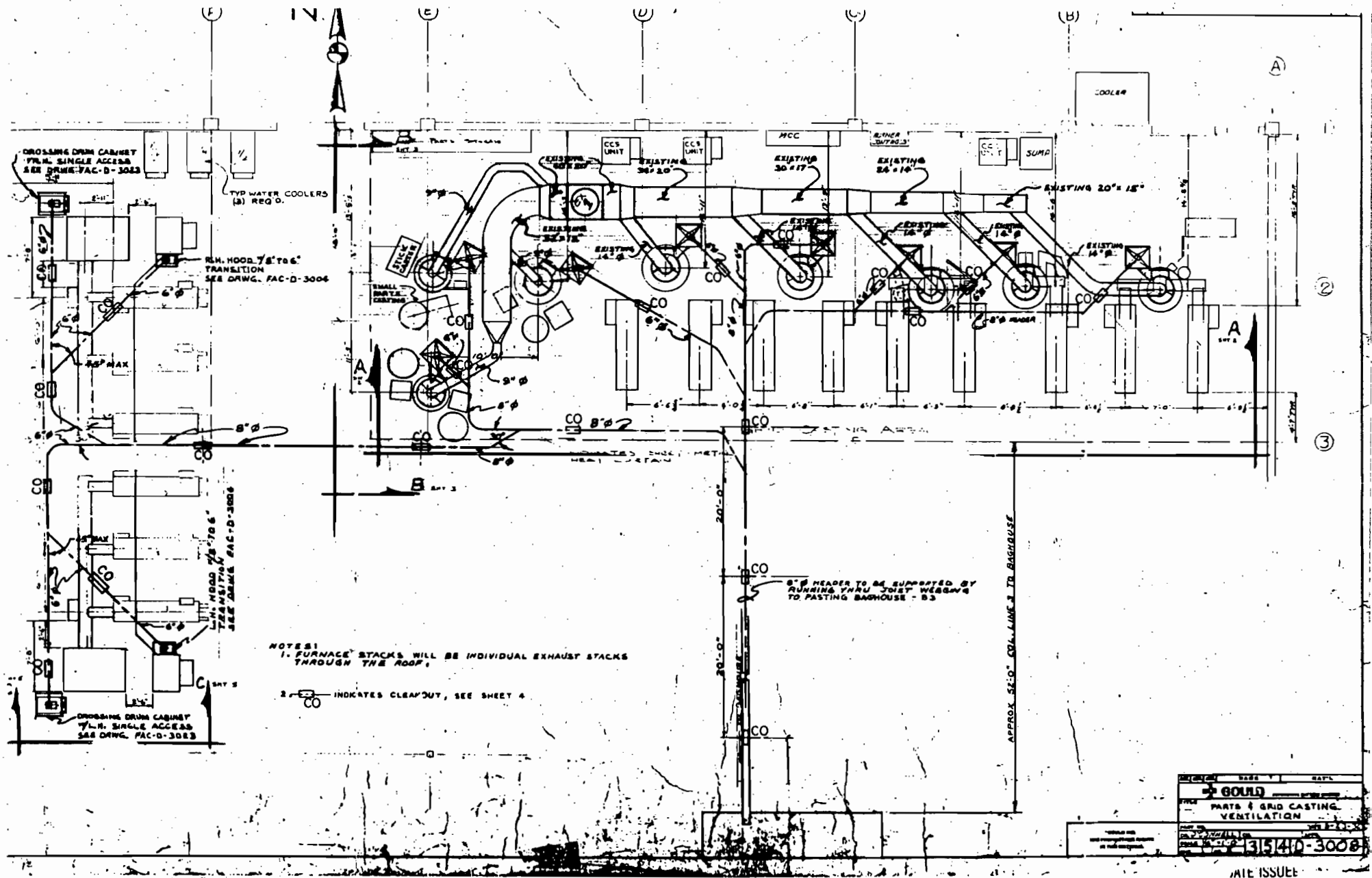
SCRAP OVENS AND EXHAUST SYSTEM

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

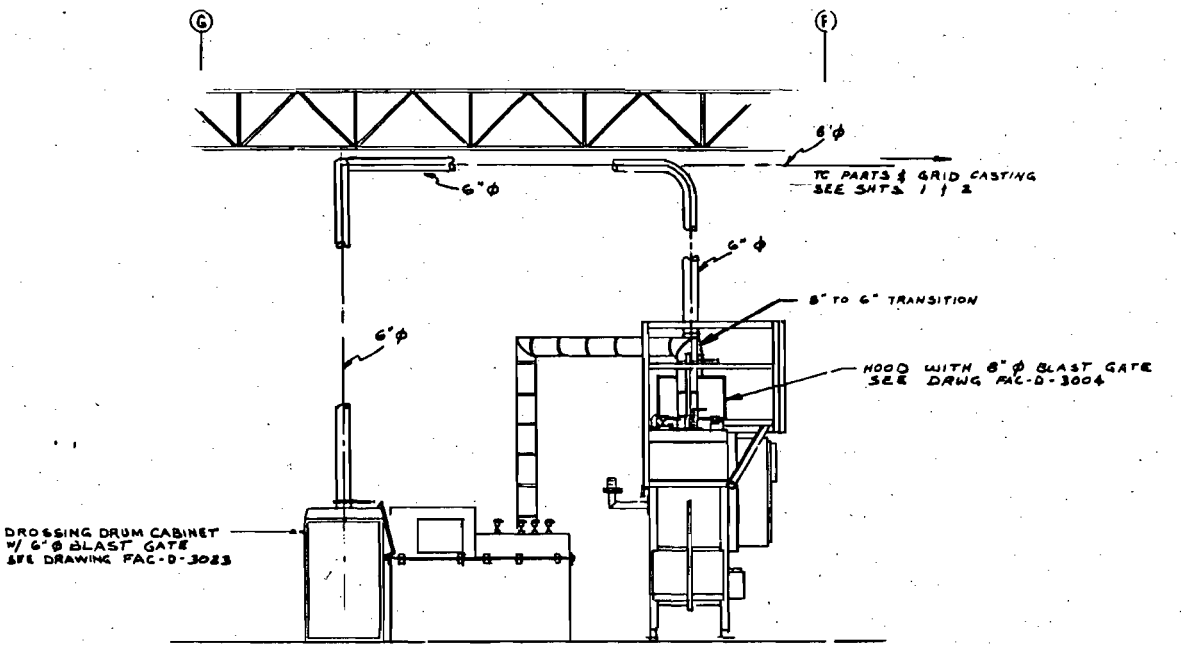
G N B - INCORPORATED
ORLANDO - FL.

DES.	DWN.	115-7-5
SCALE NONE	DATE 8-26-85	DRAWING NO.

Best Available Copy



EX 1



SECTION C-C

NAME	MAT'L
GOULD	
M. F. GRID CASTING VENTILATION	
DWG. NO. 3540-3008	

DATE ISSUED
AUG 28 1985

11"
11"
5'8
8.5"
11"
17"
22"

7.11 SECONDARY LEAD SMELTING

Revised by William M. Vatavuk

7.11.1 Process Description [1-3]

In the secondary smelting, refining, and alloying of lead, the three types of furnace most commonly used are reverberatory, blast or cupola, and pot. The grade of metal to be produced—soft, semisoft, or hard—dictates the type of funace to be used.

Used for the production of semisoft lead, the reverberatory furnace reclaims this metal from a charge of lead scrap, battery plates, oxides, drosses, and lead residues. The furnace consists of an outer shell built in the shape of a rectangular box lined with refractory brick. To provide heat for melting, the charge gas or oil-fired burners are usually placed at one end of the furnace, and the material to be melted is charged through an opening in the shell.

The charge is placed in the furnace in such a manner as to keep a small mound of unmelted material on top of the bath. Continuously, as this mound becomes molten at the operating temperature (approximately 1250°C), more material is charged. Semisoft lead is tapped off periodically as the level of the metal rises in the furnace. The amount of metal recovered is about 50 to 60 kilograms per square meter of hearth area per hour.

A similar kind of furnace—the revolving (rotary) reverberatory—is used at several European installations for the recovery of lead from battery scrap and lead sulfate sludge. Its charge makeup and operating characteristics are identical to the reverberatories used in the United States, except that the furnace slowly revolves as the charge is heated.

The blast (cupola) furnace, used to produce "hard" lead, is normally charged with the following: rerun slag from previous runs (4.5 percent); cast-iron scrap (4.5 percent); limestone (3 percent); coke (5.5 percent); and drosses from pot furnace refining, oxides, and reverberatory slag (82.5 percent). Similar to an iron cupola, the furnace consists of a steel sheet lined with refractory material. Air, under high pressure, is introduced at the bottom through tuyeres to permit combustion of the coke, which provides the heat and a reducing atmosphere.

As the charge material melts, limestone and iron form an oxidation-retardant flux that floats to the top, and the molten lead flows from the furnace into a holding pot at a nearly continuous rate. The rest (30 percent) of the tapped molten material is slag, 5 percent of which is retained for later rerun. From the holding pot, the lead is usually cast into large ingots called "buttons" or "sows."

Pot-type furnaces are used for remelting, alloying, and refining processes. These furnaces are usually gas fired and range in size from 1 to 45 metric tons capacity. Their operation consists simply of charging ingots of lead or alloy material and firing the charge until the desired product quality is obtained.

Refining processes most commonly employed are those for the removal of copper and antimony to produce soft lead, and those for the removal of arsenic, copper, and nickel to produce hard lead.

Figure 7.11-1 illustrates these three secondary lead smelting processes.

7.11.2 Emissions and Controls [1,2]

The emissions and controls from secondary lead smelting processes may be conveniently considered according to the type of furnace employed.

With the reverberatory furnaces, the temperature maintained is high enough to oxidize the sulfides present in the charge to sulfur dioxide and sulfur trioxide, which, in turn, are emitted in the exit gas. Also emitted are such particulates (at concentrations of 16 to 50 grams per cubic meter) as oxides, sulfides, and sulfates of lead, tin,

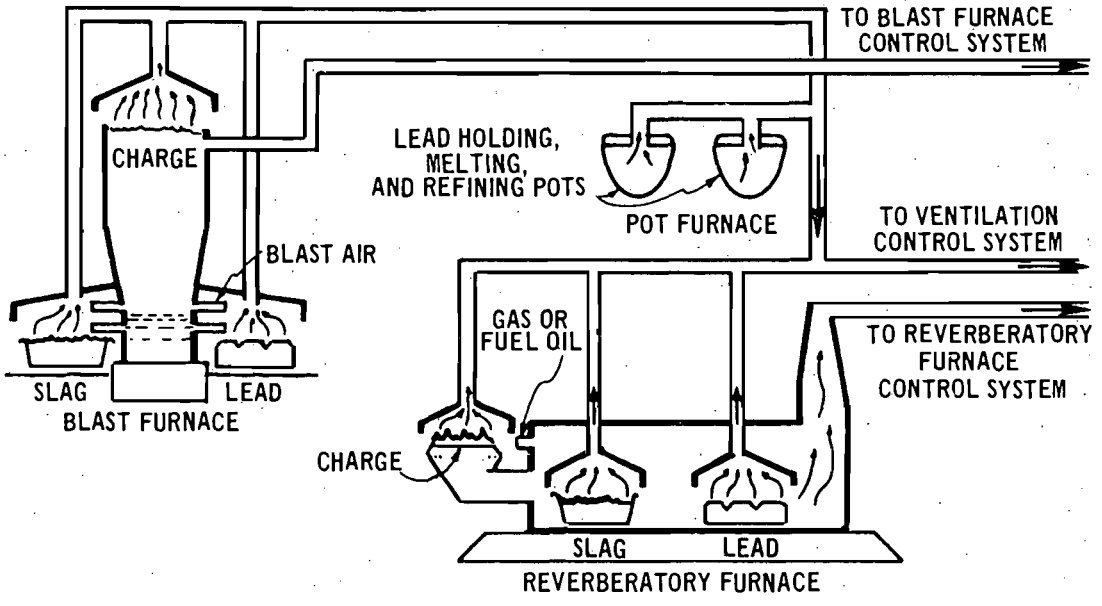


Figure 7.11-1. Secondary lead smelter processes.[4]

arsenic, copper, and antimony. The particles are nearly spherical and tend to agglomerate. Emission factors for reverberatory furnaces are presented in Table 7.11-1.

The most practical control system for a reverberatory furnace consists of a gas settling/cooling chamber and a fabric filter. This system effects a particulate removal of well in excess of 99 percent. Because of the potential presence of sparks and flammable material, a great deal of care is taken to control the temperature of the gas stream. In turn, the type of filter cloth selected depends upon stream temperature and such parameters as gas

Table 7.11-1. EMISSION FACTORS FOR SECONDARY LEAD SMELTING FURNACES WITHOUT CONTROLS[a]
EMISSION FACTOR RATING: B

Furnace type	Particulates		Sulfur dioxide	
	kg/MT	lb/ ton	kg/MT	lb/ton
Reverberatory[b]	73.5 (28.0 to 156.5)[c]	147 (56 to 313)	40.0 (35.5 to 44.0)	80 (71 to 88)
Blast (cupola)[d]	96.5 (10.5 to 190.5)	193 (21.0 to 381.0)	26.5 (9.0 to 55.0)	53.0 (18 to 110)
Pot[e]	0.4	0.8	Neg	Neg
Rotary reverberatory[f]	35.0	70.0	NA[g]	NA[g]

[a]All emission factors expressed in terms of kg/MT and lb/ton of metal charged to furnace.
[b]References 2, 5 through 7.
[c]Numbers in parentheses represent ranges of values obtained.
[d]References 2, 7 through 9.
[e]Reference 7.
[f]Reference 3.
[g]NA—no data available to make estimates.

Table E-1 (continued). UNCONTROLLED LEAD EMISSION FACTORS

AP-42 Section	Process	Emission factor[a,b] Metric	Emission factor[a,b] English	References
	Reverberatory furnace	0.006-0.7 kg/MT prod	0.012-0.14 lb/ton prod	1
	Electric induction furnace	0.005-.05 kg/MT prod	0.009-0.1 lb/ton prod	1
7.11	Secondary lead smelting			
	Reverberatory furnace	17 kg/MT Pb prod	34 lb/ton Pb prod	1,66
	Blast cupola furnace	22 kg/MT Pb prod	44 lb/ton Pb prod	1,66
	Refining kettles	0.1 kg/MT Pb prod	0.21 lb/ton Pb prod	46
7.15	Storage battery production (total)	8 kg/10^3 batteries	17.7 lb/10^3 batteries	1,55-58
	Grid casting	0.4 kg/10^3 batteries	0.9 lb/10^3 batteries	1,55-58
	Lead oxide mill (baghouse outlet)	0.05 kg/10^3 batteries	0.12 lb/10^3 batteries	1,55-58
	Three-process operations[c]	6.6 kg/10^3 batteries	14.6 lb/10^3 batteries	1,55-58
	Lead reclaim furnace	0.35 kg/10^3 batteries	0.77 lb/10^3 batteries	1,55-58
	Small parts casting	0.05 kg/10^3 batteries	0.10 lb/10^3 batteries	1,55-58
7.16	Lead oxide and pigment production			
	Barton pot (baghouse outlet)	0.22 kg/MT prod	0.44 lb/ton prod	1,61,62
	Calcining furnace	7 kg/MT prod	14 lb/ton prod	61
	Red lead (baghouse outlet)	0.5 kg/MT prod	0.9 lb/ton prod	1,54
	White lead (baghouse outlet)	0.28 kg/MT prod	0.55 lb/ton prod	1.54
	Chrome pigments	0.065 kg/MT prod	0.13 lb/ton prod	1.54
7.17	Miscellaneous lead products			
	Type metal production	0.13 kg/MT Pb proc	0.25 lb/ton Pb Proc	1,63
	Can soldering[d]	160 kg/10^6 baseboxes prod	0.18 ton/10^6 base-boxes prod	1
	Cable covering	0.25 kg/MT proc	0.5 lb/ton Pb proc	1,3,64

E2

File 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985

RECEIVED

FEB 27 1985

SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2;

Assembly, GNB ID #B3; Assembly, GNB ID #B4;

Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4;

Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:

Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.

Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111464
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:GNB/POT FURNACE EXHAUST HOOD
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096752

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 96752

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from M.G. Lathrop Date Oct 23, 1985

Address P.O. Box 43140 St Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address _____

Scurce of Revenue None

Revenue Code 001031 AC226856 Application Number AC48-111464

By K. Liebak

AC 48-111464

E3

PAID
10D
OCT 23

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SAINT JOHNS
RIVER DISTRICT

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

APPLICATION TO ~~OPERATE~~ CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Pot Furnace Exhaust Hood [ ] New[1] [X] Existing[1]

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

COMPANY NAME: GNB INCORPORATED COUNTY: Orange

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) Exhaust Hood for one Electric Pot Furnace serving 3 Casting Machines

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23' 58 "N Longitude 81° 24 ' 02 "W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/8/85 Telephone No. 612/681-5227

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

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

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

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

Signed John W. Bottorf, Jr.

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)

Florida Registration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

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.

The project consists of one electric pot furnace with exhaust hood serving three grid casting machines. The project as described should result in full compliance with all applicable regulations.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E. Requeated permitted equipment operating time: hrs/day 16 ; days/wk 6 ; wks/yr 52 ; if power plant, hrs/yr_____; if seasonal, deacribe: Not seasonal

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

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

   a. If yes, has "offset" been applied? _____

   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. No

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

4. Do "Standards of Performance for New Stationary Sourcea" (NSPS) apply to this aource? 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 pollutanta?_____

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

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Refined Lead	Lead	7.5×10^{-4}	1225 Lb./Hr.	
	Particulate	2.9×10^{-3}		

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

1. Total Process Input Rate (lbs/hr): 1225 Lb./Hr. of Lead

2. Product Weight (lbs/hr): 1225 Lb./Hr. of Cast Lead Grids

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	0.0092	0.02	See attached SIP Document	0.0096	80.5	0.04	
Particulate	0.49	1.225	See attached SIP Document	5% Opacity	4292	2.15	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Exhaust Fan	Lead	N/A		
McMaster 2097R32	Particulate	N/A		

E. Fuels

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

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

Fuel Analysis:

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 waates generated and method of disposal.

_____

_____

_____

_____

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

Stack Height: 33 ft. Stack Diameter: 1 ft.

Gas Flow Rate: 1300 ACFM 910 DSCFM Gas Exit Temperature: 100 °F.

Water Vapor Content: 5 % Velocity: 27.60 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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	Emiesion Rate	
TSP	_____	grama/sec
SO^2	_____	grama/sec

E. Emiasion 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.

GNB Incorporated

Supplement to section V, DER Form 17-1.202(1)

Potential Emissions Calculations

Calculation Basis: Potential emissions calculations are based on a production rate of 43.75 batteries/hour or 0.6125 tons/hour of lead.

Potential operating hours = 8760 hours/year

Potential yearly production = 383250 batteries/year

= 5365.5 tons of lead/year

Particulate = 0.8 lb/ton x 5365.5 ton of lead/year

= 4292 lb/year or 2.15 ton/year or 0.49 lb/hour

Lead = 0.21 lb/1000 batteries x 383.25 1000 batteries

= 80.5 lb/year or 0.04 ton/year or 0.01 lb/hour

Actual Emissions Calculations

Calculation Basis: Actual emissions calculations are based on a production rate of 43.75 batteries/hour or 0.6125 tons/hour of lead. The facility operates approximately 5000 hours/year.

Proposed operating schedule = 16 hr/day 6 day/wk 52 wk/yr

= 5000 hours/year

Actual yearly production = 218750 batteries/year

= 3062.5 tons of lead/year

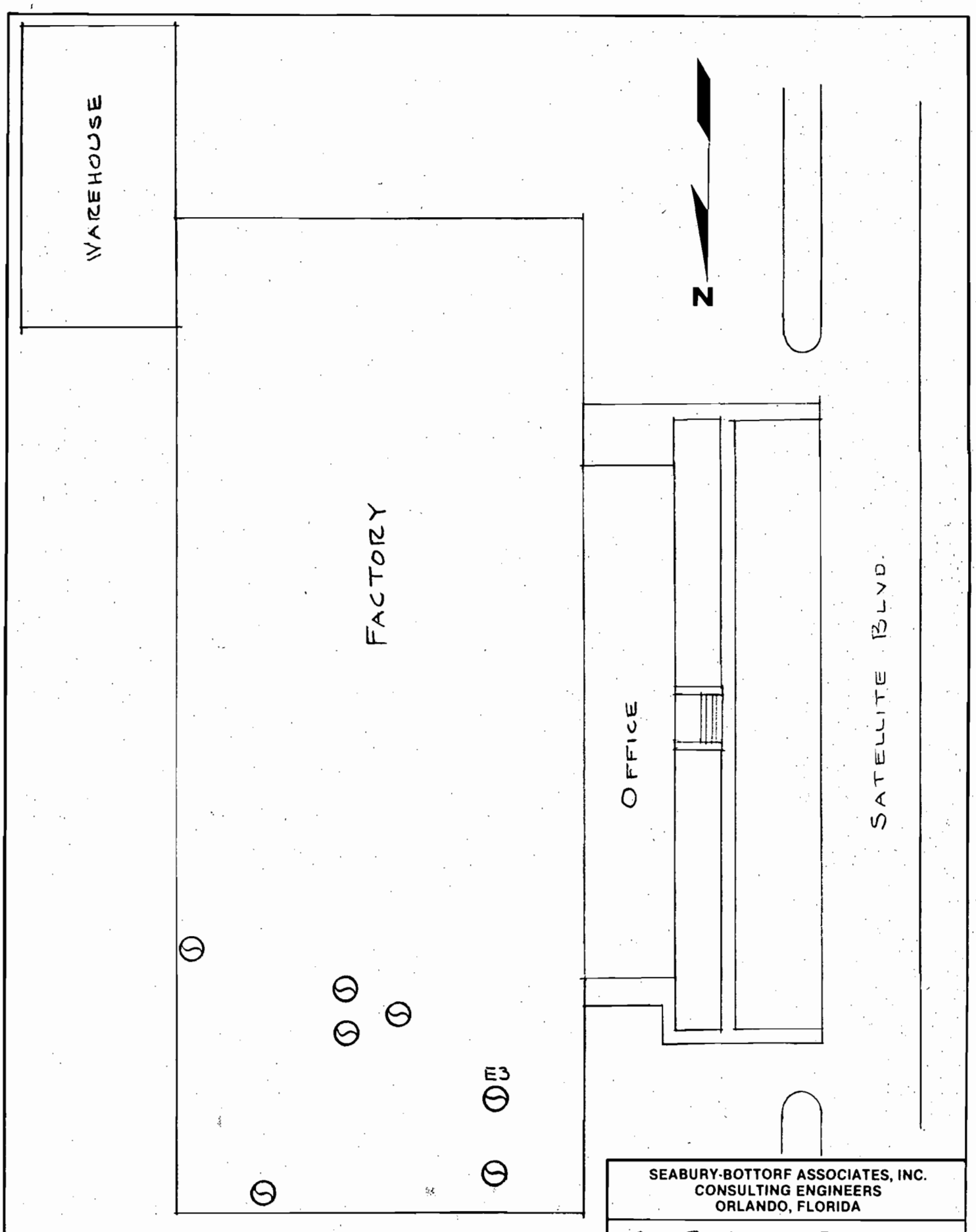
Particulate = 0.8 lb/ton x 3062.5 tons of lead/year

= 2450 lb/yr or 1.225 ton/year or 0.49 lb/hour

Lead = 0.21 lb/1000 batteries x 218.75 1000 batteries

= 45.94 lb/year or 0.02 ton/year or 0.0092 lb/hour

Particulate Emission Factors From AP-42,table 7.11-1.
Lead Emission Factors From AP-42,table 7.15-1.

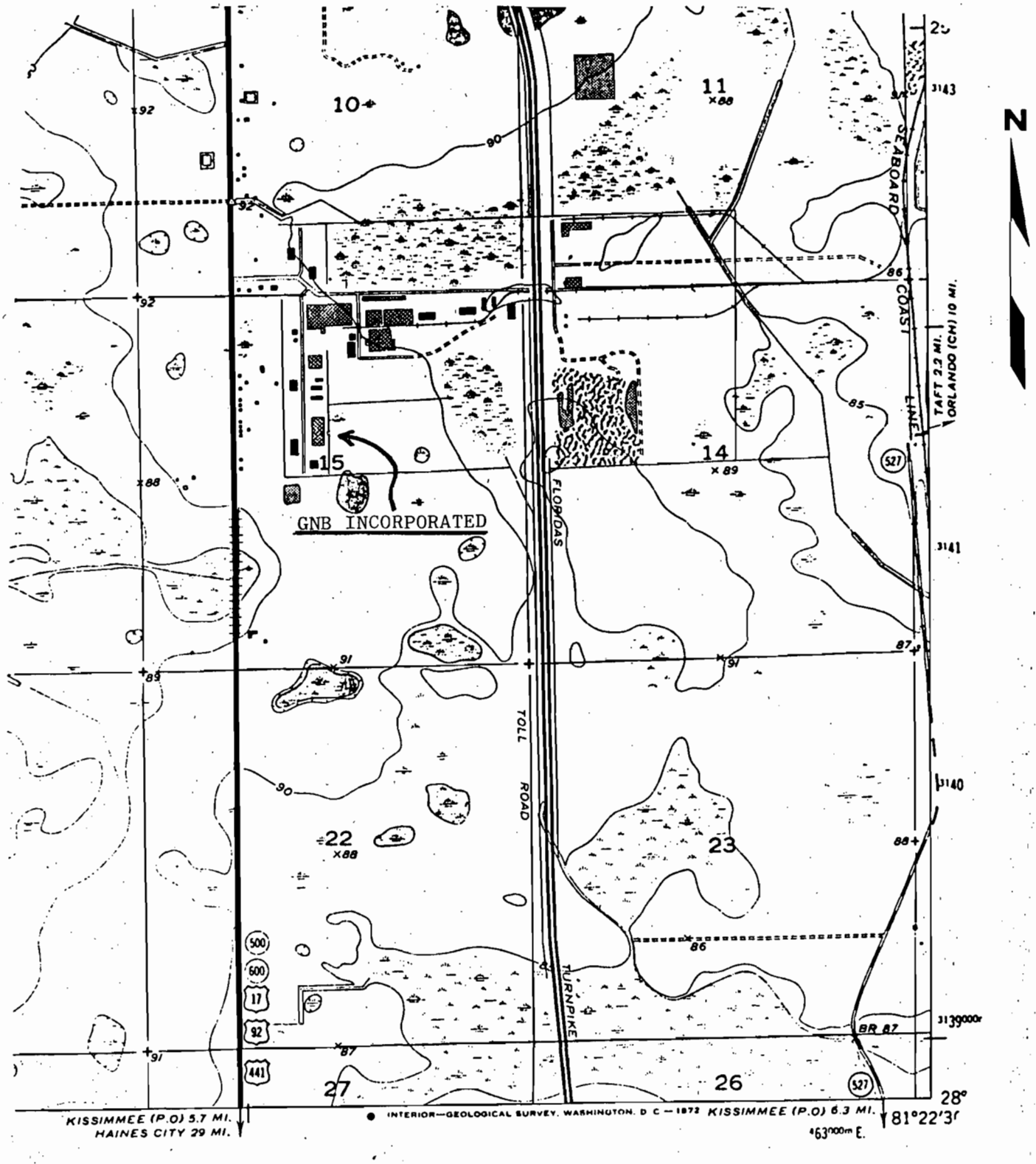


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES. ~	DWN. ~	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.

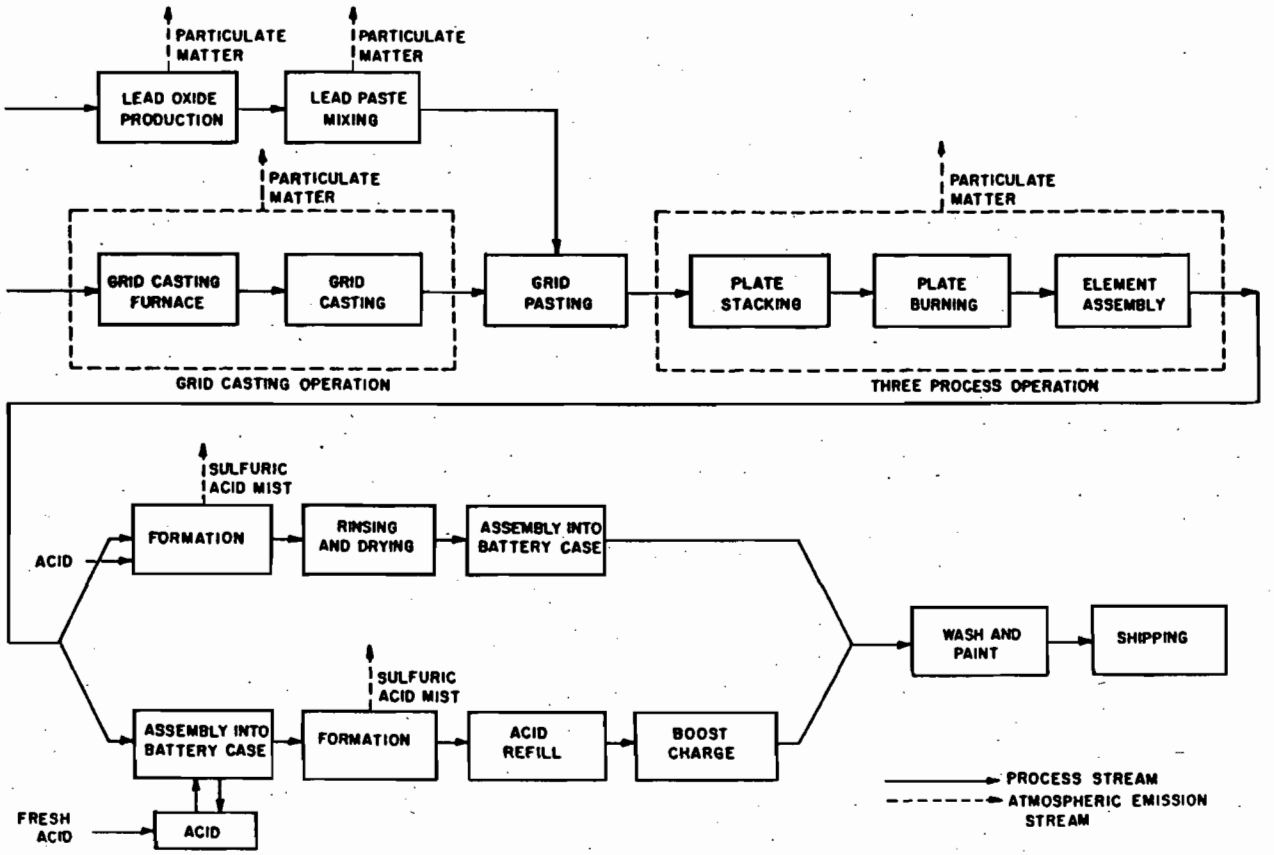
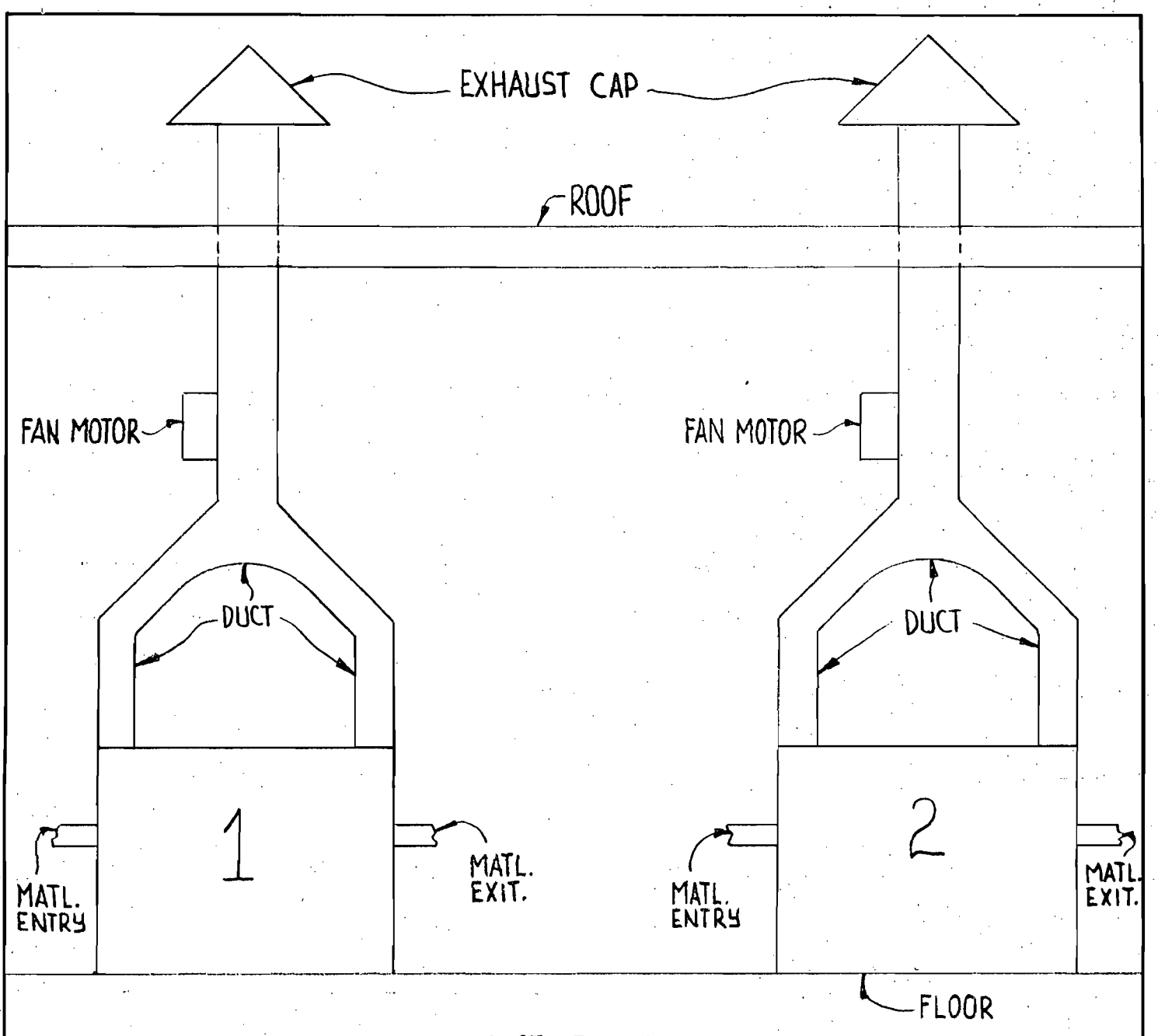


Figure 7.15-1. Process flow diagram for storage battery production.

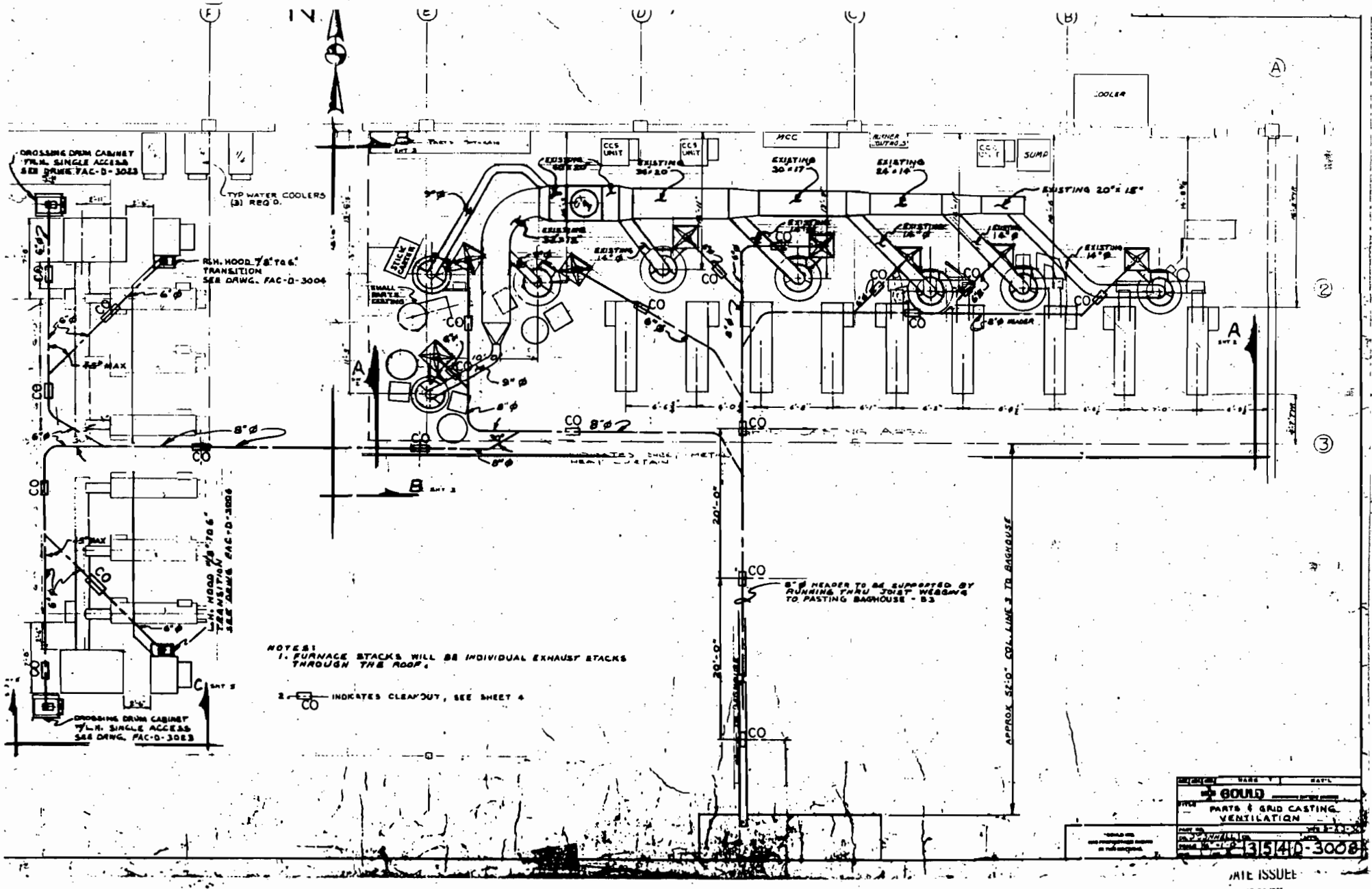


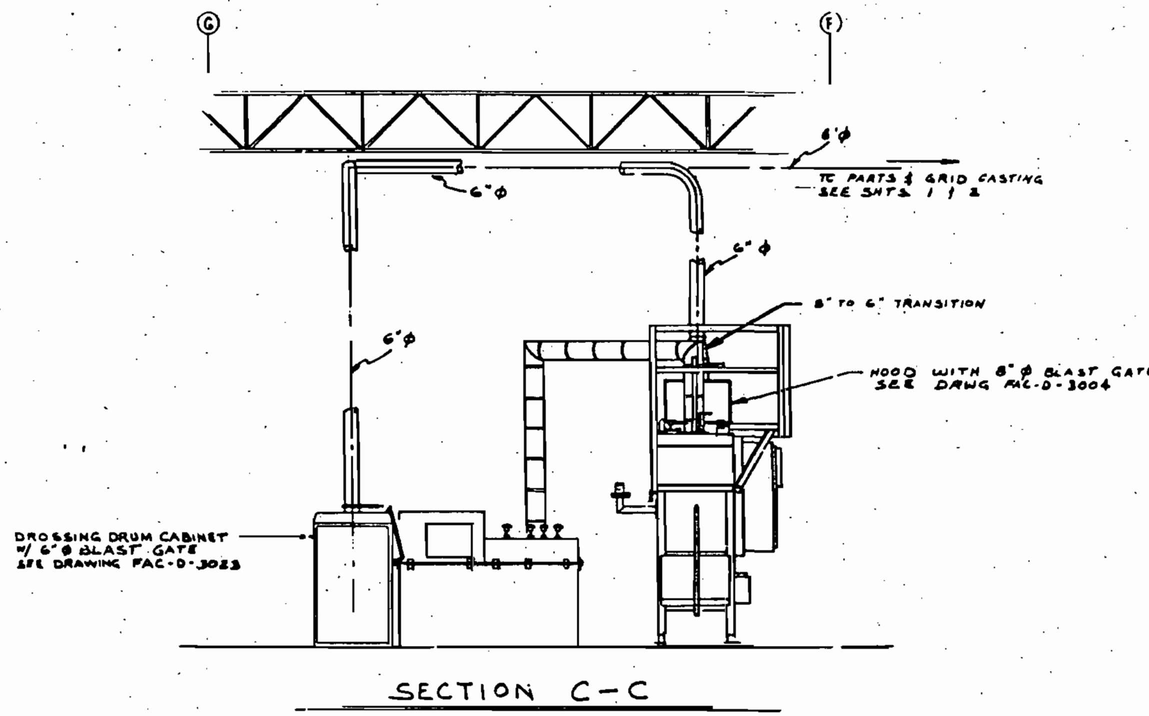
EAST ELEVATION

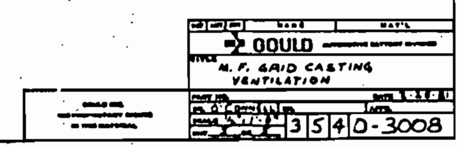
1 AND 2 - SCRAP OVEN

SCRAP OVENS AND EXHAUST SYSTEM

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA	
G N B - INCORPORATED ORLANDO - FL.	
DES Kim	DWN Kim
SCALE NONE	DATE 8-26-85
115-7-5	DRAWING NO.







DATE ISSUED
AUG 29 1985

7.11 SECONDARY LEAD SMELTING

Revised by William M. Vatavuk

7.11.1 Process Description [1-3]

In the secondary smelting, refining, and alloying of lead, the three types of furnace most commonly used are reverberatory, blast or cupola, and pot. The grade of metal to be produced—soft, semisoft, or hard—dictates the type of funace to be used.

Used for the production of semisoft lead, the reverberatory furnace reclaims this metal from a charge of lead scrap, battery plates, oxides, drosses, and lead residues. The furnace consists of an outer shell built in the shape of a rectangular box lined with refractory brick. To provide heat for melting, the charge gas or oil-fired burners are usually placed at one end of the furnace, and the material to be melted is charged through an opening in the shell.

The charge is placed in the furnace in such a manner as to keep a small mound of unmelted material on top of the bath. Continuously, as this mound becomes molten at the operating temperature (approximately 1250°C), more material is charged. Semisoft lead is tapped off periodically as the level of the metal rises in the furnace. The amount of metal recovered is about 50 to 60 kilograms per square meter of hearth area per hour.

A similar kind of furnace—the revolving (rotary) reverberatory—is used at several European installations for the recovery of lead from battery scrap and lead sulfate sludge. Its charge makeup and operating characteristics are identical to the reverberatories used in the United States, except that the furnace slowly revolves as the charge is heated.

The blast (cupola) furnace, used to produce "hard" lead, is normally charged with the following: rerun slag from previous runs (4.5 percent); cast-iron scrap (4.5 percent); limestone (3 percent); coke (5.5 percent); and drosses from pot furnace refining, oxides, and reverberatory slag (82.5 percent). Similar to an iron cupola, the furnace consists of a steel sheet lined with refractory material. Air, under high pressure, is introduced at the bottom through tuyeres to permit combustion of the coke, which provides the heat and a reducing atmosphere.

As the charge material melts, limestone and iron form an oxidation-retardant flux that floats to the top, and the molten lead flows from the furnace into a holding pot at a nearly continuous rate. The rest (30 percent) of the tapped molten material is slag, 5 percent of which is retained for later rerun. From the holding pot, the lead is usually cast into large ingots called "buttons" or "sows."

Pot-type furnaces are used for remelting, alloying, and refining processes. These furnaces are usually gas fired and range in size from 1 to 45 metric tons capacity. Their operation consists simply of charging ingots of lead or alloy material and firing the charge until the desired product quality is obtained.

Refining processes most commonly employed are those for the removal of copper and antimony to produce soft lead, and those for the removal of arsenic, copper, and nickel to produce hard lead.

Figure 7.11-1 illustrates these three secondary lead smelting processes.

7.11.2 Emissions and Controls [1,2]

The emissions and controls from secondary lead smelting processes may be conveniently considered according to the type of furnace employed.

With the reverberatory furnaces, the temperature maintained is high enough to oxidize the sulfides present in the charge to sulfur dioxide and sulfur trioxide, which, in turn, are emitted in the exit gas. Also emitted are such particulates (at concentrations of 16 to 50 grams per cubic meter) as oxides, sulfides, and sulfates of lead, tin,

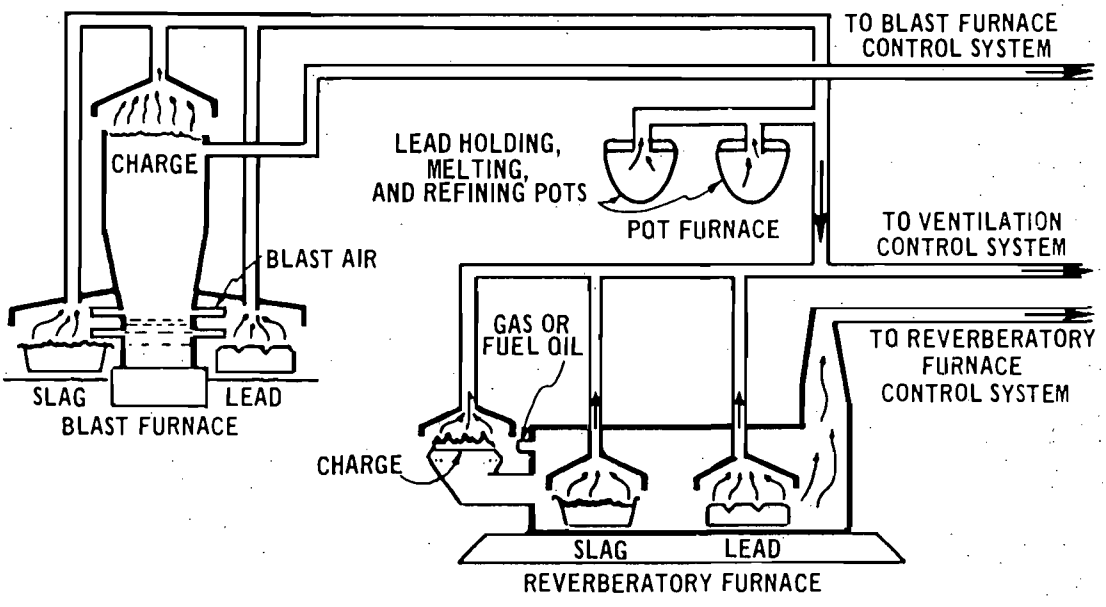


Figure 7.11-1. Secondary lead smelter processes.[4]

arsenic, copper, and antimony. The particles are nearly spherical and tend to agglomerate. Emission factors for reverberatory furnaces are presented in Table 7.11-1.

The most practical control system for a reverberatory furnace consists of a gas settling/cooling chamber and a fabric filter. This system effects a particulate removal of well in excess of 99 percent. Because of the potential presence of sparks and flammable material, a great deal of care is taken to control the temperature of the gas stream. In turn, the type of filter cloth selected depends upon stream temperature and such parameters as gas

Table 7.11-1. EMISSION FACTORS FOR SECONDARY LEAD SMELTING FURNACES WITHOUT CONTROLS[a]
EMISSION FACTOR RATING: B

Furnace type	Particulates		Sulfur dioxide	
	kg/MT	lb/ ton	kg/MT	lb/ton
Reverberatory[b]	73.5 (28.0 to 156.5)[c]	147 (56 to 313)	40.0 (35.5 to 44.0)	80 (71 to 88)
Blast (cupola)[d]	96.5 (10.5 to 190.5)	193 (21.0 to 381.0)	26.5 (9.0 to 55.0)	53.0 (18 to 110)
Pot[e]	0.4	0.8	Neg	Neg
Rotary reverberatory[f]	35.0	70.0	NA[g]	NA[g]

[a]All emission factors expressed in terms of kg/MT and lb/ton of metal charged to furnace.
[b]References 2, 5 through 7.
[c]Numbers in parentheses represent ranges of values obtained.
[d]References 2, 7 through 9.
[e]Reference 7.
[f]Reference 3.
[g]NA—no data available to make estimates.

Table E-1 (continued). UNCONTROLLED LEAD EMISSION FACTORS

AP-42 Section	Process	Emission factor[a,b] Metric	Emission factor[a,b] English	References
	Reverberatory furnace	0.006-0.7 kg/MT prod	0.012-0.14 lb/ton prod	1
	Electric induction furnace	0.005-.05 kg/MT prod	0.009-0.1 lb/ton prod	1
7.11	Secondary lead smelting			
	Reverberatory furnace	17 kg/MT Pb prod	34 lb/ton Pb prod	1,66
	Blast cupola furnace	22 kg/MT Pb prod	44 lb/ton Pb prod	1,66
	Refining kettles	0.1 kg/MT Pb prod	0.21 lb/ton Pb prod	46
7.15	Storage battery production (total)	8 kg/10^3 batteries	17.7 lb/10^3 batteries	1,55-58
	Grid casting	0.4 kg/10^3 batteries	0.9 lb/10^3 batteries	1,55-58
	Lead oxide mill (baghouse outlet)	0.05 kg/10^3 batteries	0.12 lb/10^3 batteries	1,55-58
	Three-process operations[c]	6.6 kg/10^3 batteries	14.6 lb/10^3 batteries	1,55-58
	Lead reclaim furnace	0.35 kg/10^3 batteries	0.77 lb/10^3 batteries	1,55-58
	Small parts casting	0.05 kg/10^3 batteries	0.10 lb/10^3 batteries	1,55-58
7.16	Lead oxide and pigment production			
	Barton pot (baghouse outlet)	0.22 kg/MT prod	0.44 lb/ton prod	1,61,62
	Calcining furnace	7 kg/MT prod	14 lb/ton prod	61
	Red lead (baghouse outlet)	0.5 kg/MT prod	0.9 lb/ton prod	1,54
	White lead (baghouse outlet)	0.28 kg/MT prod	0.55 lb/ton prod	1.54
	Chrome pigments	0.065 kg/MT prod	0.13 lb/ton prod	1.54
7.17	Miscellaneous lead products			
	Type metal production	0.13 kg/MT Pb proc	0.25 lb/ton Pb Proc	1,63
	Can soldering[d]	160 kg/10^6 baseboxes prod	0.18 ton/10^6 base-boxes prod	1
	Cable covering	0.25 kg/MT proc	0.5 lb/ton Pb proc	1,3,64

E3

File 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985

RECEIVED

FEB 27 1985

SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2;

Assembly, GNB ID #B3; Assembly, GNB ID #B4;

Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4;

Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:

Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.
Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111465
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(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:GNB/TRAY EXHAUST
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096753

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No. 96753

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from GNB Batteries Date Oct 23, 1985

Address P.O. Box 43140, St Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address

Source of Revenue Dame

Revenue Code 201031 Ck 226857 Application Number AC48-111465

By K Tolbert

AC 48 - 111465

EY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SAINT JOHNS RIVER DISTRICT
ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

APPLICATION TO ~~OPERATE~~/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Tray Exhaust [ ] New[1] [X] Existing[1]

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

COMPANY NAME: GNB INCORPORATED COUNTY: Orange

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) Tray Exhaust serving Plate Pasting Operation

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81 ° 24 ' 02 "W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/8/85 Telephone No. 612/681-5227

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

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

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

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

Signed John W. Bottorf

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)

Florida Registration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

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.

The project consists of a system of tray exhausts serving the plate pasting operation. The project as described demonstrated compliance with all applicable regulations during the stack test of 2/20/85 and should result in full compliance.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E. Requested permitted equipment operating time: hrs/day 15 ; days/wk 5 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe: Not seasonal

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

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

   a. If yes, has "offset" been applied? _____

   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. No

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

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

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

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

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		
Cast Lead Grids	Lead	4.3×10^{-5}	3062.5	
	Particulate	1.1×10^{-1}		
Lead Oxide Paste	Lead	4.3×10^{-5}	3062.5	
	Particulate	1.1×10^{-1}		

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

1. Total Process Input Rate (lbs/hr): 6125

2. Product Weight (lbs/hr): 6125

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	1.065	2.13	See attached SIP Document	0.1238	9,332	4.67	
Particulate	6.75	13.5	See attached SIP Document	5% Opacity	59,155	29.6	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels N/A

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

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

Fuel Analysis: N/A

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

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

_____

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

Annual Average _____ Maximum _____

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

_____

_____

_____

_____

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

Stack Height: 40 ft. Stack Diameter: 3 ft.

Gas Flow Rate: 17,150 ACFM 16,600 DSCFM Gas Exit Temperature: 90 °F.

Water Vapor Content: 1 % Velocity: 58.5 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, inatall 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 avsilsble spsce, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Coat:

e. Uaeful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials snd process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conatruction materials snd process chemicals:

j. Applicability to manufacturing processes:

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

F. Deacribe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Uaeful 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 unita 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 muat state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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.

GNB Incorporated

Supplement to section V, DER Form 17-1.202(1)

Potential Emissions Calculations

Calculation Basis: Potential emissions calculations are based on a production rate of 218.75 batteries/hour or 3.06 tons/hour of lead. The particulate emission factor is assumed one third of a three process operation since that most closely resembles the process.

Potential operating hours = 8760 hours/year

Potential yearly production = 1916250 batteries/year

= 26827.5 tons of lead/year

Particulate = 30.87 lb/1000 batteries x 1916.25 1000 batteries

= 59154.6 lb/year or 29.6 ton/year or 6.75 lb/hour

Lead = 4.87 lb/1000 batteries x 1916.25 1000 batteries

= 9332 lb/year or 4.67 ton/year or 1.065 lb/hour

Actual Emissions Calculations

Calculation Basis: Actual emissions calculations are based on a production rate of 218.75 batteries/hour or 3.06 tons/hour of lead. This source is limited to 4000 hours of operation per year.

Proposed operating schedule = 15 hr/day 5 day/wk 52 wk/yr

= 4000 hours/year

Actual yearly production = 875000 batteries/year

= 12250 tons of lead/year

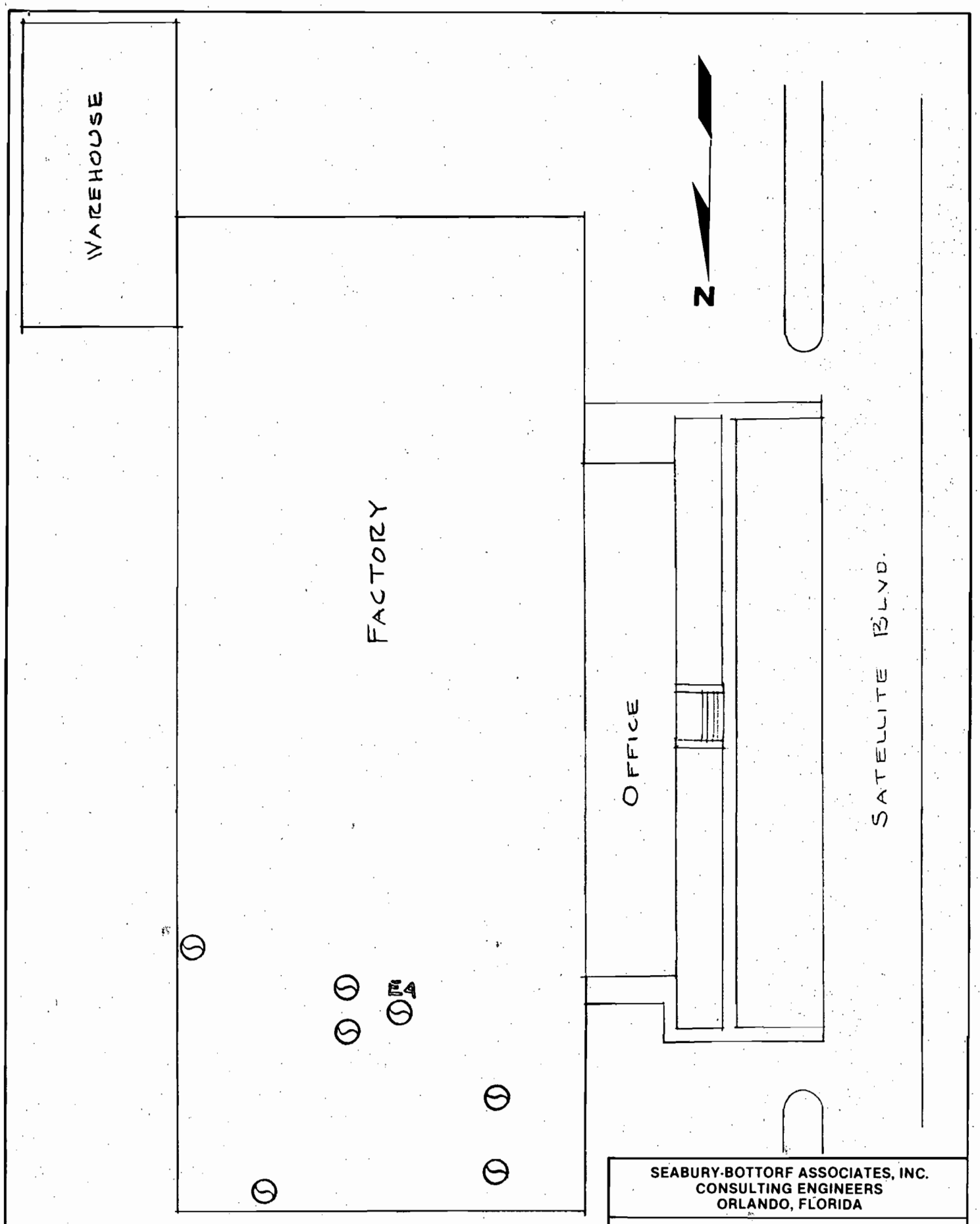
Particulate = 30.87 lb/1000 batteries x 875 1000 batteries

= 27011.25 lb/yr or 13.5 ton/year or 6.75 lb/hour

Lead = 4.87 lb/1000 batteries x 875 1000 batteries

= 4261.3 lb/year or 2.13 ton/year or 1.065 lb/hour

Particulate Emissions factors from AP-42, table 7.15-1.
Lead Emissions factors from AP-42, table E-1.

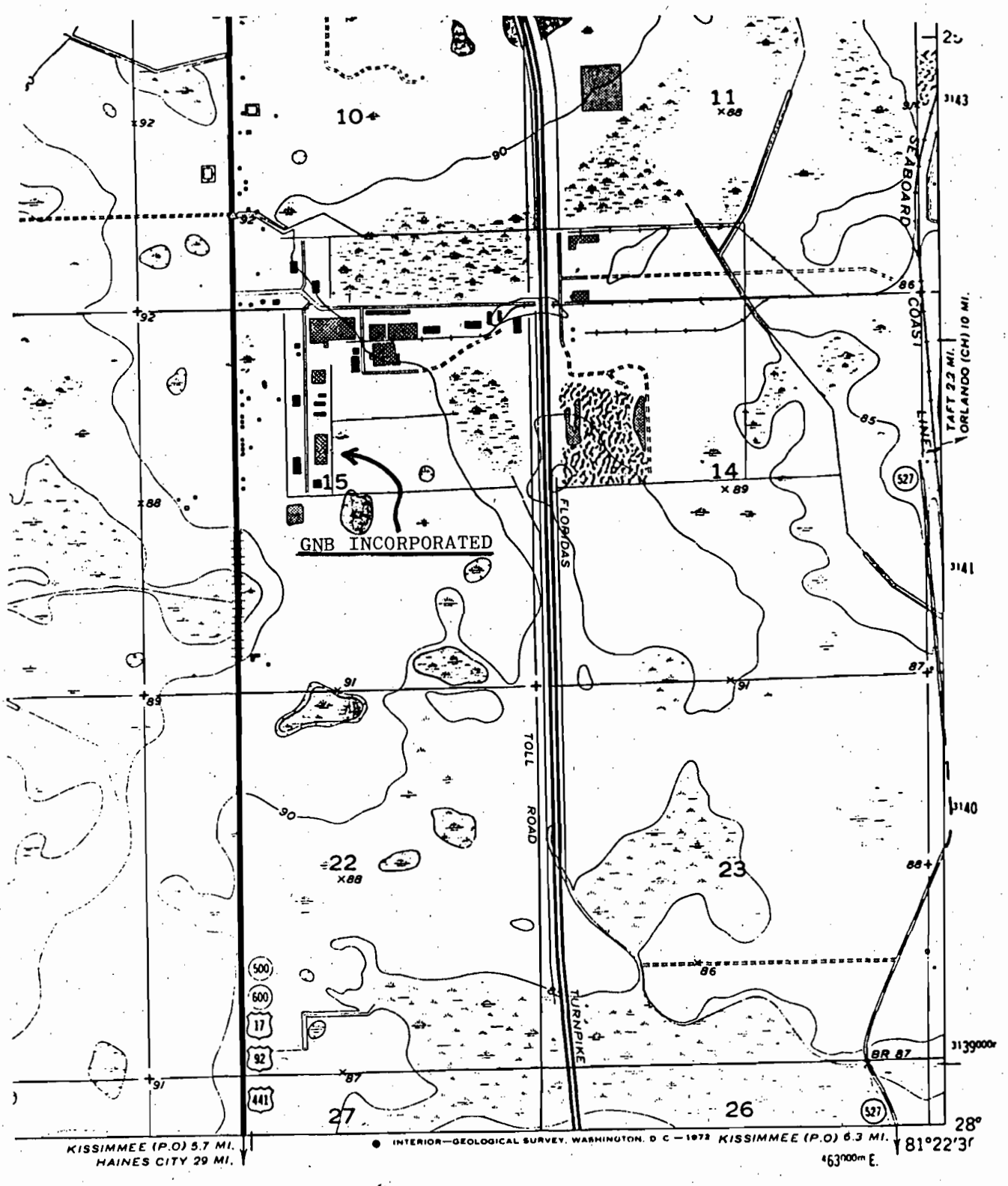


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES. ~	DWN. ~	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.

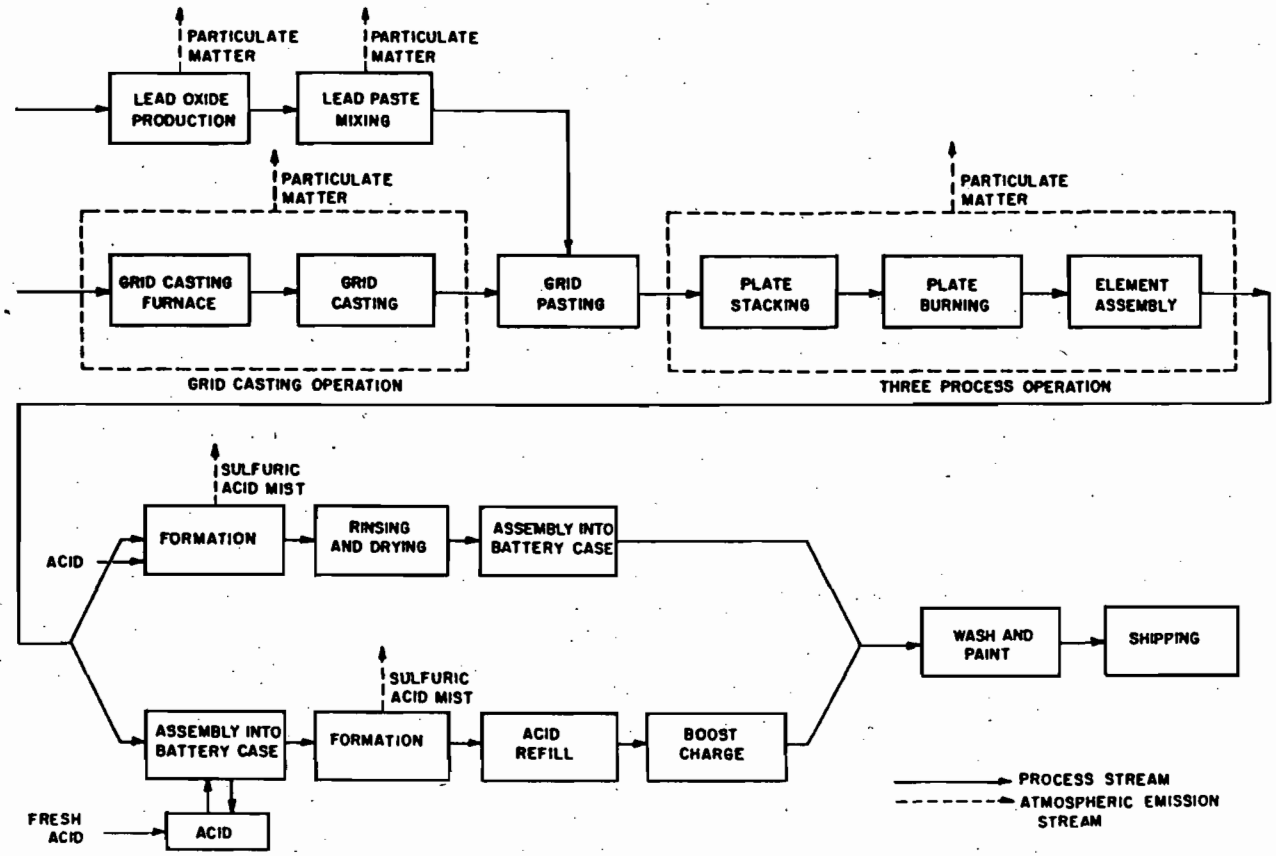
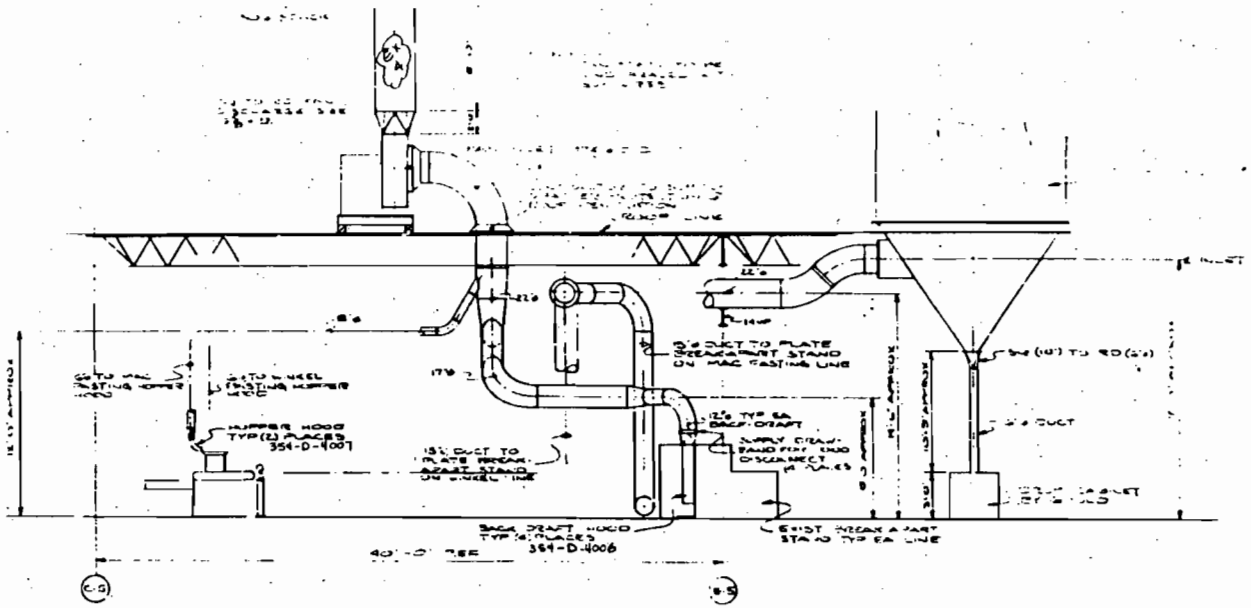


Figure 7.15-1. Process flow diagram for storage battery production.



SECTION A A

SCALE ¼" = 1'-0"

NOTES:

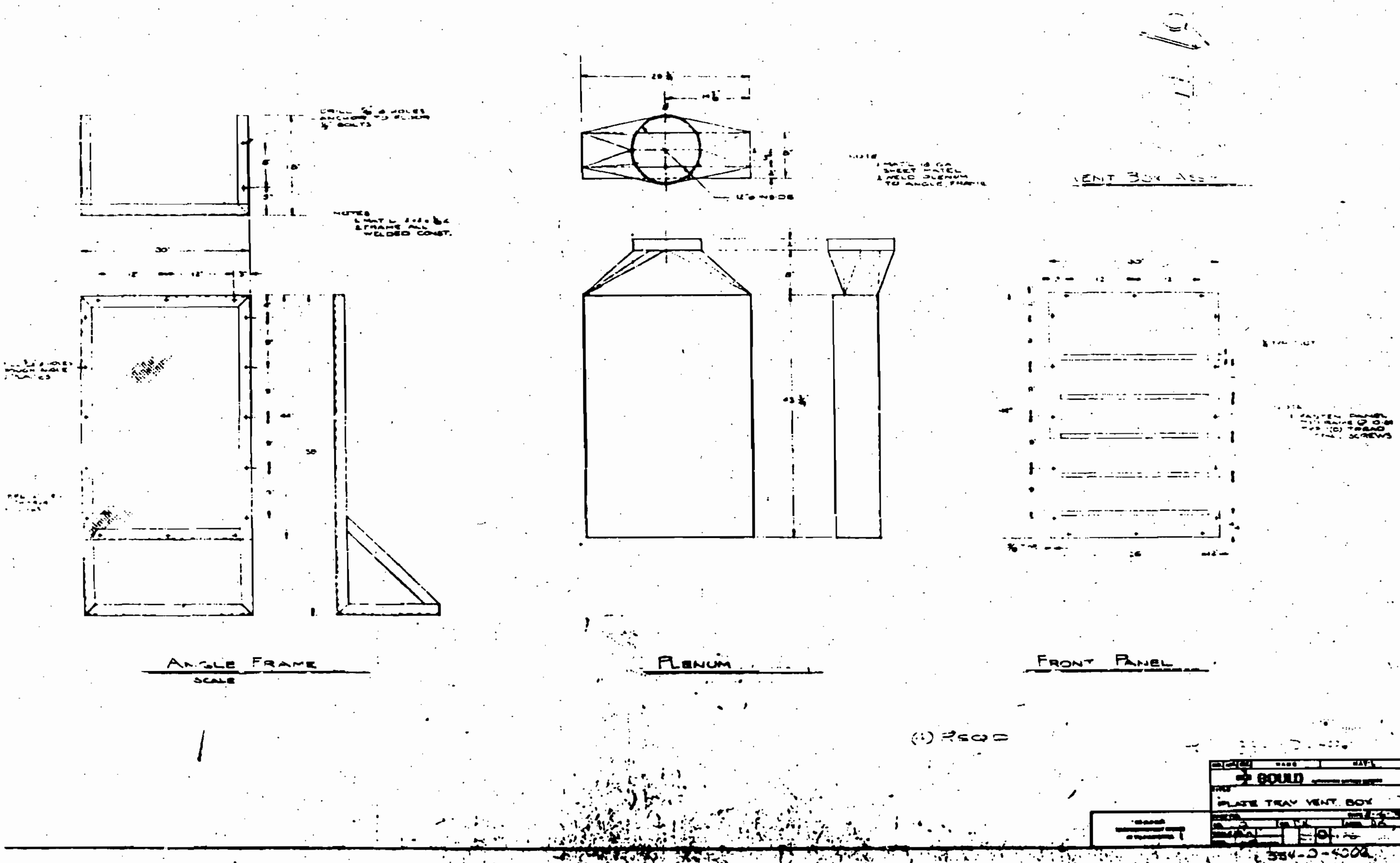
GOULD

354-D-4005

EX 4

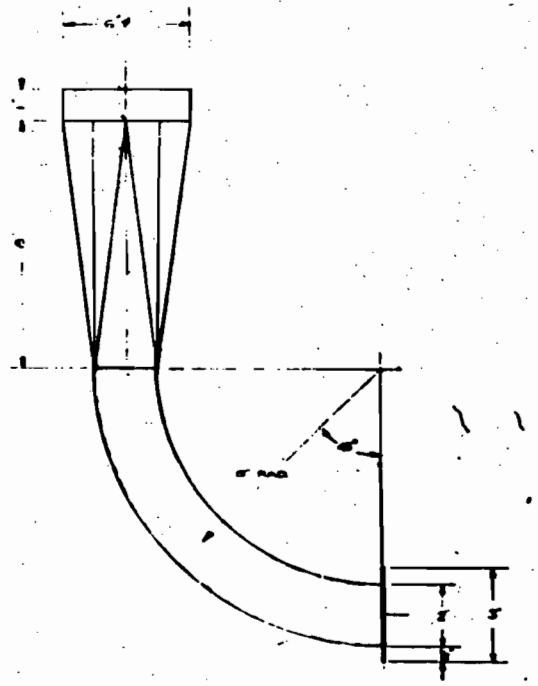
AUG 28 1985

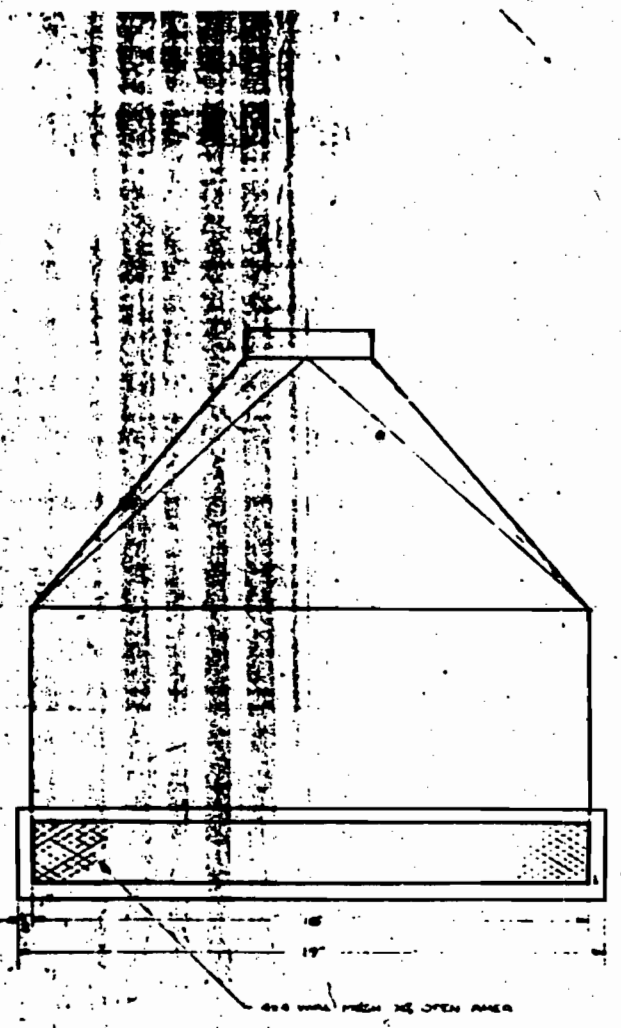
Best Available Copy



EX 4

DATE ISSUED
AUG 08 1985





(2) REQ'D

GOULD

VENTILATION HOOD (2 REQ'D)

354-0-4007

AIF ISSUED

AUG 29 1985

EX4

OFFICE COPY

Engineering Report

Lead Emissions Test

GNB Batteries, Inc.

Tray Exhaust (E4)

February 20, 1985

Seabury — Bottorf Associates, Inc.
Consulting Engineers & Analytical Laboratory
4595 Parkbreeze Ct. Orlando, Fla. 32808-1057

Introduction

On February 20, 1985 a Lead Emissions Test was conducted on the Tray Exhaust (E4) which is operated by GNB Batteries, Inc.. The test was performed using EPA Reference Methods No.12 and No.9. The facility operated normally during the testing. All other test procedures were performed in accordance with the Florida Administrative Code, Chapter 17-2.

The test results show that this source is in compliance for lead emissions. A summary of the results are as follows:

	Run 1	Run 2	Run 3	Average
Process Rate (tons/hour)	1.062	1.494	1.198	1.251
Lead Emissions (pounds/hour)	0.0002	0.0380	0.0084	0.0155
Allowable Lead Particulate (pounds/hour)	0.1238	0.1238	0.1238	0.1238
Isokinetic Sampling Rate (%)	100.37	98.04	97.16	98.52

The test, analysis of samples, and all other procedures were performed in a professional manner and in accordance with the official procedures as outlined in Chapter 17-2, latest edition, of the State of Florida Department of Environmental Regulation Rules.

SEABURY - BOTTORF ASSOCIATES, INC.

Kent D. Bottorf, Vice President

General Information

Facility Name: GNB Batteries, Inc.

Facility Address: P. O. Box 1310 Orlando, Florida 32859

Type of Facility: Automotive Battery Production

Type of Source: Pasting Exhaust

Date of Test: February 20, 1985

Type of Pollution Control Device: None

Persons Conducting Test: Bill Arlington, Test Equipment Operator
Bob Chartier, Probe Holder
Kent Bottorf, Analysis and Report

Plant Personnel Involved: J. N. Robson

Test Method Used: EPA Reference Method 12

Modifications: Flexible sample line between filter and first impinger.

Field Data

	Run 1	Run 2	Run 3
Date of Test Run :	2/20/85	2/20/85	2/20/85
Test Start Time :	8.01	10.06	1.00
Test Finish Time :	9.31	12.30	2.40
Actual Stack Area (Sq. Ft.) :	4.9086	4.9086	4.9086
Corrected Stack Area (Sq. Ft.)	4.9086	4.9086	4.9086
Impinger H_2O Collected (Ml.) :	10	8	9
Silica Gel H_2O Collected (g.) :	2	2	2
Volume Metered (Cu. Ft.) :	60.14	59.26	59.81
Dry Gas Meter Cal Factor :	.9991	.9991	.9991
Average Square Root of Delta P :	1.062	1.053	1.062
Average Delta H (In. H_2O) :	1.54	1.518	1.543
Average Meter Temperature (Deg. R) :	532.5	546.7	554.2
Average Stack Temperature (Deg. R) :	534	545	548.4
Stack Pressure (In. Hg.) :	30.053	30.053	30.053
Barometric Pressure (In. Hg.) :	30.09	30.09	30.09
Actual Nozzle Diameter (In.) :	.1908	.1908	.1908
Actual Nozzle Area (Sq. Ft.) :	1.99E-04	1.99E-04	1.99E-04
Actual Sample Time (min.) :	88	88	88
Pitot Tube Coefficient :	.817	.817	.817
Average Sampling Rate (cfm) :	.68	.67	.68
Average Cyclonic Flow Angle :	0	0	0
Average Cosine of Flow Angles :	1	1	1

E4

File 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985

RECEIVED

FEB 27 1985

SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2; Assembly, GNB ID #B3; Assembly, GNB ID #B4; Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4; Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:

Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.

Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111466
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:GNB/PASTE OVEN
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096754

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

№ 96754

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from 3M Co. Bettinus Date Oct 23, 1985

Address P.O. Box 43140, St Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address

Source of Revenue Same

Revenue Code 001031 Ck 226858 Application Number AC48-111466

By K Sellack

AC 48-111466

E5

PAID
100
OCT 23 1995

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SAINT JOHNS RIVER DISTRICT

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

RECEIVED
OCT 1995
ST. JOHNS River District

APPLICATION TO ~~OPERATE~~ CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Paste Oven [ ] New[1] [X] Existing

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

COMPANY NAME: GNB INCORPORATED COUNTY: Orange

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) Exhaust of Gas Fired Flash Paste Drying Oven

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81 ° 24 ' 02 "W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/18/95 Telephone No. 612/681-5227

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

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

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

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

Signed _____

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)

Florida Registration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

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.

The project consists of a MAC24 Paste Drying Oven fired with natural gas. The oven is used to dry lead oxide paste that is applied to cast lead grids. The project as described should result in full compliance with all applicable regulations.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E. Requested permitted equipment operating time: hrs/day 15 ; days/wk 5 ; wks/yr 52 ; if power plant, hrs/yr_____; if seasonal, describe: Not seasonal

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

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

   a. If yes, has "offset" been applied? _____

   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. No

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

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

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

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

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		
Cast Lead Grids	Lead	1.4×10^{-4}	1531.25	
	Particulate	5.5×10^{-2}		
Lead Oxide Paste	Lead	1.4×10^{-4}	1531.25	
	Particulate	5.5×10^{-2}		

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

1. Total Process Input Rate (lbs/hr): 3062.5

2. Product Weight (lbs/hr): 3062.5

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	0.2658	0.53	See attached SIP Documents	0.0048	2328.4	1.16	
Particulate	1.68	3.37	See attached SIP Documents	5% Opacity	14,756	7.38	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	206.9 CFH	243.4 CFH	0.25

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

Fuel Analysis:

Percent Sulfur: <0.01% Percent Ash: <0.01%

Density: 0.044 Lb./CF Typical Percent Nitrogen: 0.49%

Heat Capacity: 1027 BTU/CF N/A 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.

Solid waste generated by the process is collected and reused in the process.

No liquid wastes are generated.

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

Stack Height: 30 ft. Stack Diameter: 1.17 x 1.5 ft.

Gas Flow Rate: 800 ACFM 650 DSCFM Gas Exit Temperature: 160 °F.

Water Vapor Content: 5 % Velocity: 7.6 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO_2* _____ Wind spd/dir

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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

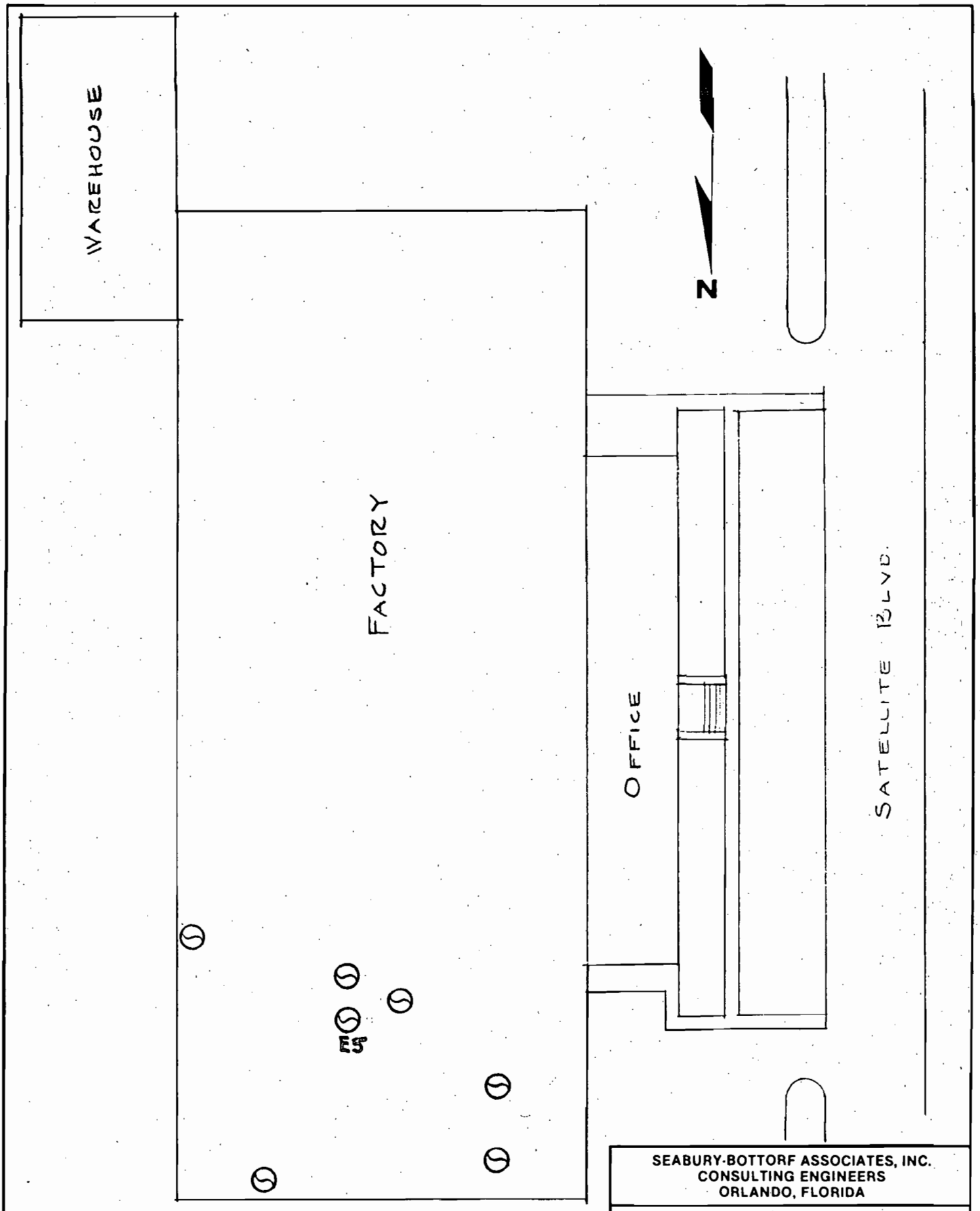
E. Emission Data Used in Modeling

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.

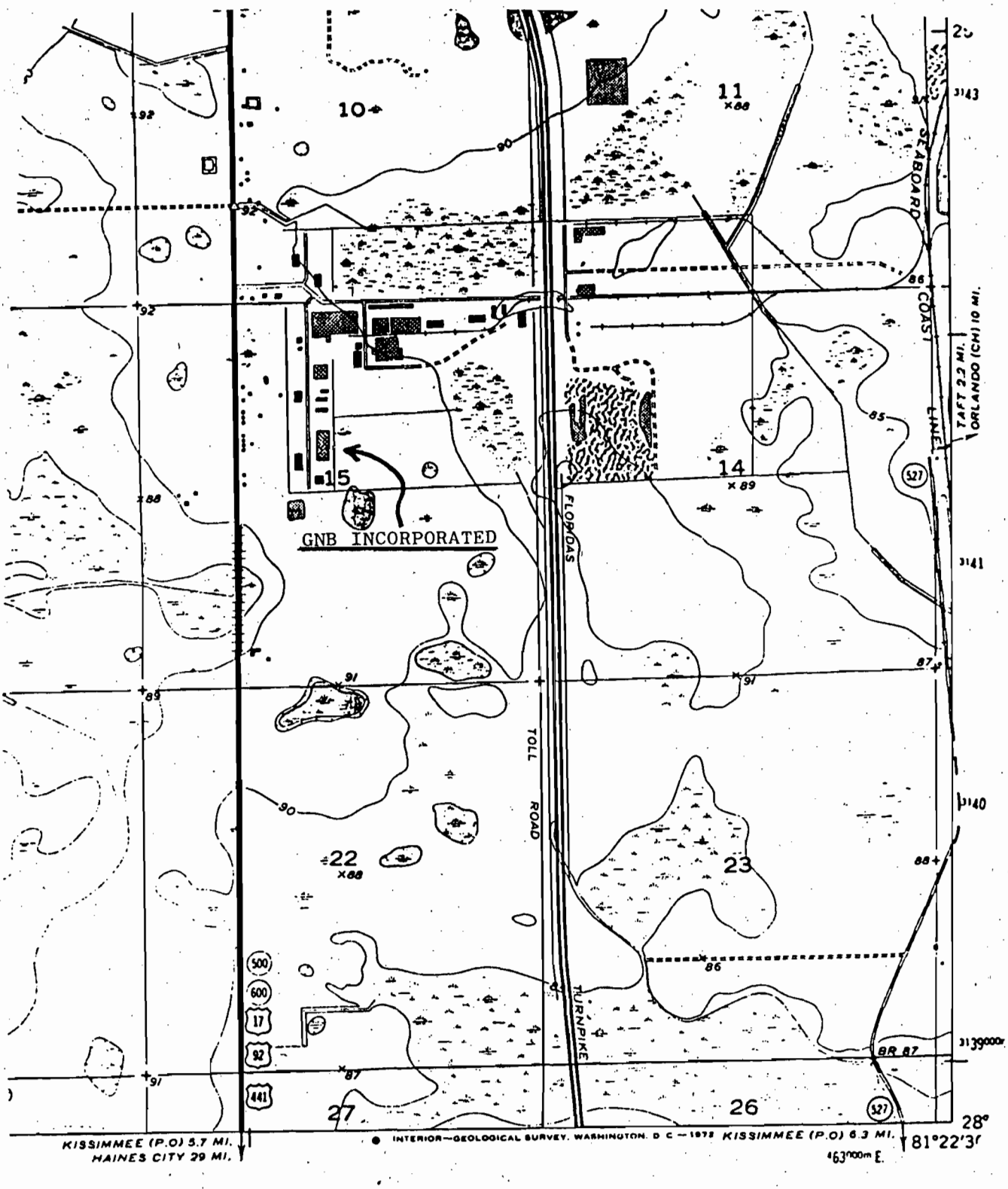


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES. ~	DWN. ~	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.

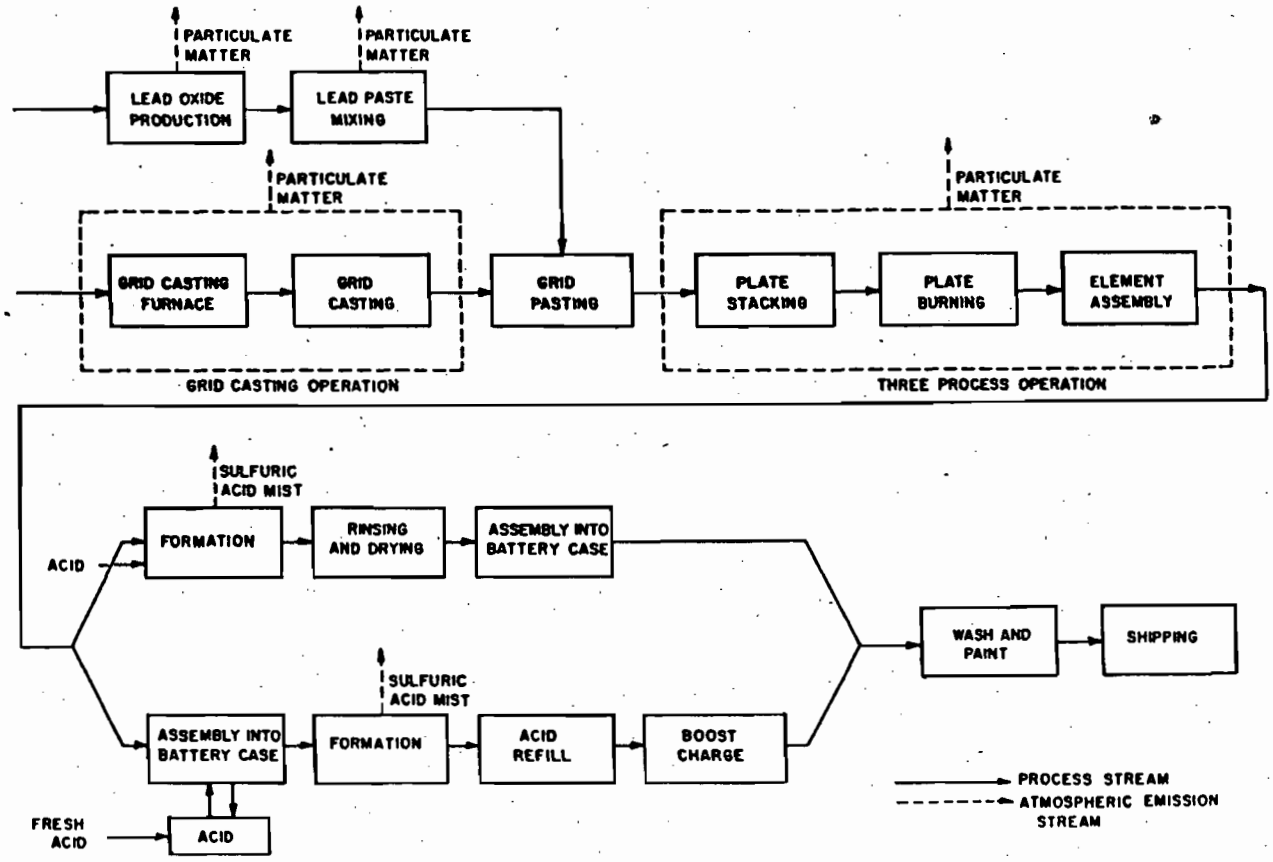
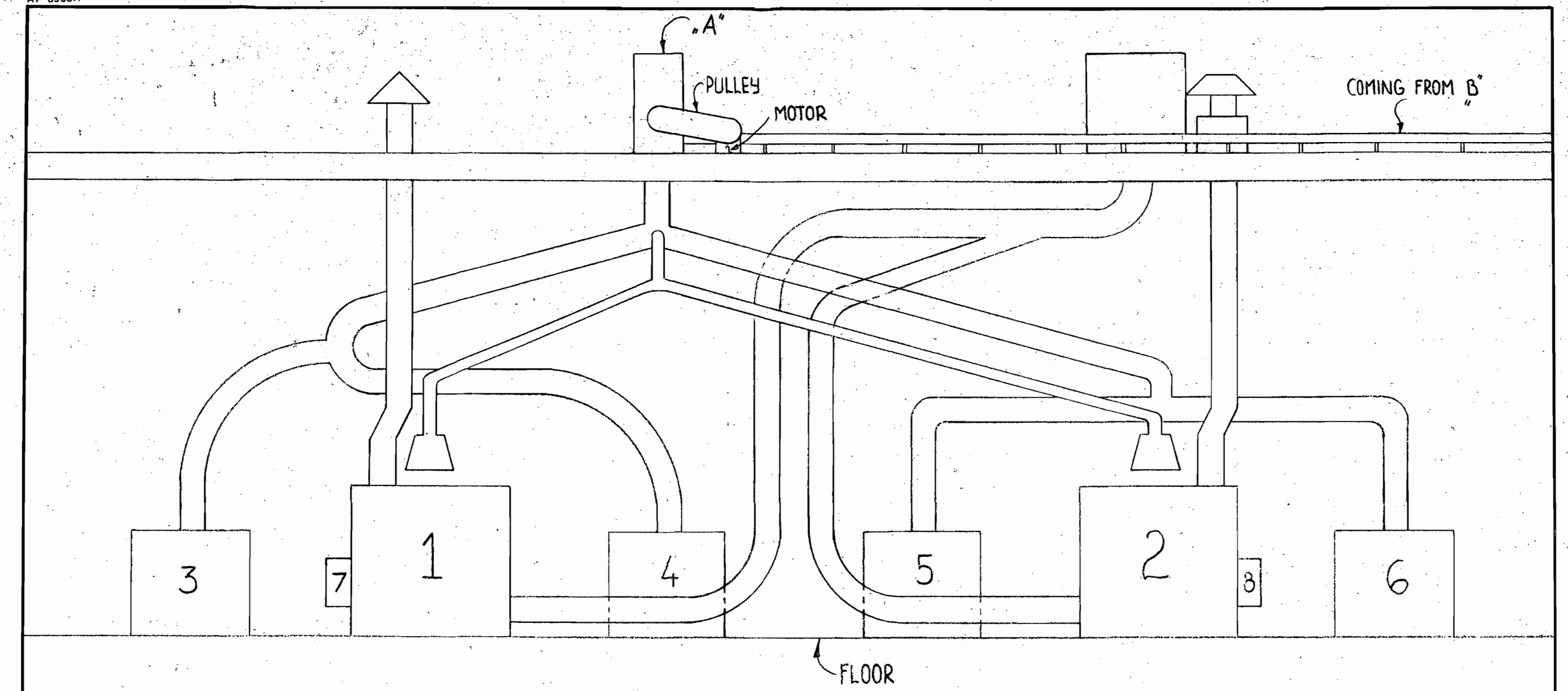


Figure 7.15-1. Process flow diagram for storage battery production.

AF 8358A



WEST ELEVATION

1 AND 2 - PASTE OVEN
3 THRU STACKER
7 AND 8 - FAN MOTOR

PASTE OVENS; STACKERS AND EXHAUST SYSTEM

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

G N B - INCORPORATED
ORLANDO - FL.

DES.	DWN.	115-7-8
SCALE NONE	DATE 8-27-85	DRAWING NO.

Dry up to 180 pasted automotive panels per minute – SAVES you fuel.

The autoMAC oven features an energy saving combination of gas infrared and convection heating for surface drying automotive size pasted panels at speeds adjustable from 80 to 180 panels per minute. AutoMAC series of ovens is available in a 24 or 34 foot (7,315 or 10,363 mm) length. Each is designed to handle thin plates made from regular, low, or non-antimony grids.

- **ENERGY-EFFICIENT** – Combination infra-red and convection heating.

The autoMAC oven series features a production proven two zone oven construction. A downdraft ventilating system recycles heat from the infra-red-heated zone and reuses it in a convection-heated zone. The system provides complete evacuation of gases and helps prevent escape of heat–saving you energy. Additional fuel savings are generated by the automatic temperature control (standard) which keeps oven temperature constant under load or no-load conditions. Heavily fiberglass insulated lay-on access doors also help retain heat.

- **FLEXIBLE** – range of speeds, BTU input.

AutoMAC is available as a 24 or 34 foot (7,315 or 10,363 mm) oven, each unit having built-in 2 foot (610 mm) incoming and outlet conveyors. Each model is half infra-red heated zone and half convection-heated zone, allowing the 34 foot model to provide the same quality drying at lower operating temperatures. A 1 h.p. electric motor with a gear-reducer drive controls oven speeds, from 80 to 180 plates per minute. The firing rate is infinitely variable from 100,000 to 700,000 BTU's per hour for the model 24. The model 34 is variable from 100,000 to 1,050,000 BTU's per hour. For safety, autoMAC ovens have an automatic spark ignition. Lower drying temperatures mean gas energy savings, lower thermal shock for plates at oven exit, extended oven life and less day-to-day maintenance.

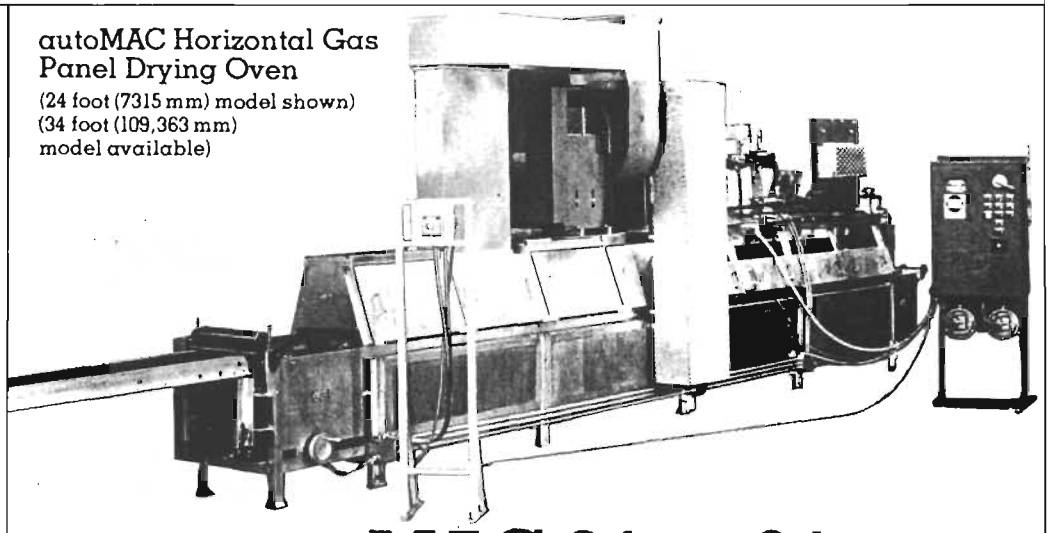
- **EASY TO OPERATE** – one operator, simple controls, uncomplicated design.

A single operator can handle the operation because controls are simple. For your production flexibility, operator controls can be built into either the left or right side of the oven (when facing the incoming conveyor). Horizontal plate handling minimizes plate damage and reduces pelleting. The little debris that drops hits the slanted oven floor and is directed to the four, easily accessible debris clean-out doors (six on 34-foot model). Low ambient temperatures keep operator comfortable, protect equipment and allow mounting of blowers, burners and controls above oven, out of the dirt and hazards of floor mounting.

- **EASY UNLOADING**

A 10-foot (3048 mm) horizontal off-bearing conveyor using four block chains provides for horizontal shingle stacking and unloading. A 1 h.p. motor drives the belt oven conveyor and the 4-chain off-bearing conveyor.

autoMAC Horizontal Gas Panel Drying Oven
(24 foot (7315 mm) model shown)
(34 foot (109,363 mm) model available)



autoMAC 24 ~~or 34~~ oven

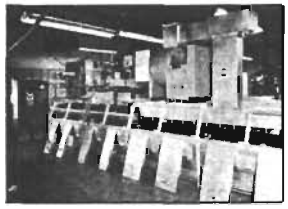
- **SAFETY FEATURES** – electrical and combustion controls include safety and product protection.

Failure of any important components to operate properly automatically interrupts fuel gas supply, resulting in burner shutoff. Main electric control panel is mounted on a separate stand to reduce potential harm to components from heat or vibration. Automatic temperature controller is on a separate stand near oven outlet.

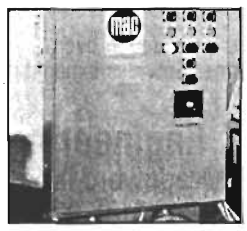
- **QUALITY PRODUCT** – top results with soft-metal grids.

Even thin, low-and non-antimony grids are positively conveyed through the drier. Free-floating belt conveyor support rails keep plates flat and even for proper surface drying. Rails are free to expand so they will not warp (which could cause a production interruption), and can be lifted out in five-foot (1524 mm) sections.

Infra-red Zone/Convection Zone saves energy by using heat to its fullest.

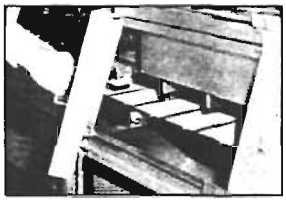


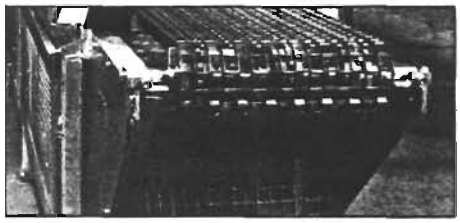
Infra-red zone (left) has two rows of burners mounted above the oven conveyor so dust and dirt does not clog them. A 1½ H.P. combustion-air blower sets up downdraft and begins recirculation of heated air. (far left). A 7½ H.P. blower (right) creates negative pressure in the infrared zone to draw the heat to the convection zone (at right) and provide positive exhaust of gas and fumes. (photo shows eight access doors removed from one side–34 foot (10,363 mm) model has 12 removable doors on each side). The autoMAC ovens operate with either natural or LP gases.



Free standing control panel may be mounted remotely or near oven. Simple controls are grouped for easy operation.

Lay-on, removable access doors have two inches of high-temperature fiberglass insulation completely enclosed in steel. Operator can get into any section of the furnace quickly and easily. (Photo shows last burner in infra-red zone and beginning of convection zone.)





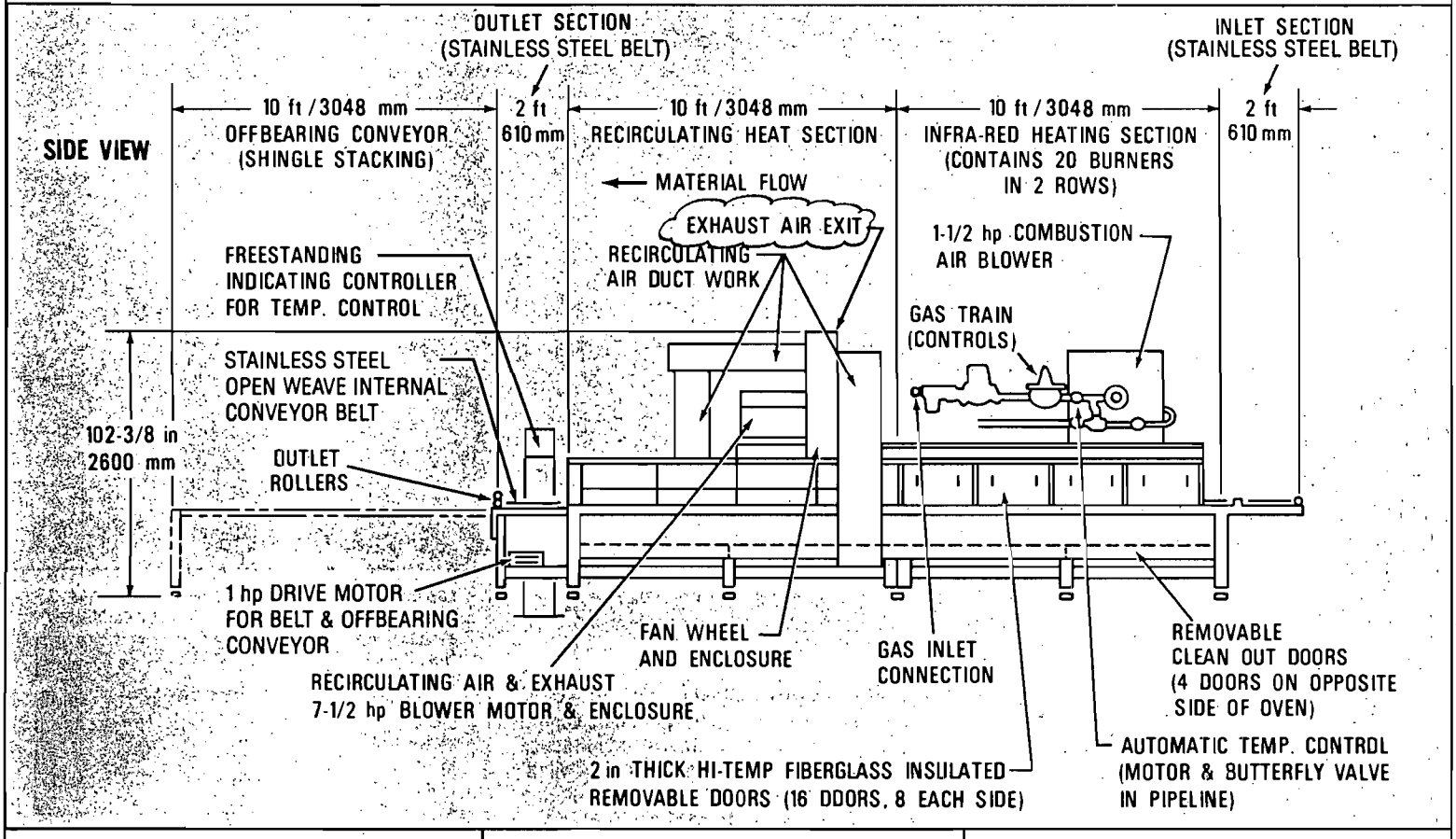
Horizontal, open weave stainless steel belt. (1-inch square openings) moves plates through the oven. No vertical hanging to bend softer, low antimony or calcium lead alloy grids. Open weave provides more even drying (33% better air flow below plates) and eliminates chain burn.

Automatic Temperature Control saves fuel.

Temperature control maintains more economical oven temperature. Controller maintains constant oven temperature under "load" or "no-load" conditions saving energy and providing an established temperature even when plate flow interruptions occur. Standard, single-point firing rate control operates a separate motor and butterfly valve in the pipeline. Manometer (water gauge) provides a separate indication of firing rate.

Slanted oven floor gives easy clean-out. Oven floor is severely slanted to direct pelleting and debris to the four easily accessible clean-out doors (six on 34-foot model)

TECHNICAL DATA
autoMAC 24 or ~~34~~ Ovens



Horizontal Gas Drying Ovens for Automotive Panels

Required User Data:

- specify 24 or 34 autoMAC
- specify gas type and supply pressure.
- specify right or left hand operator control location (when facing the incoming conveyor).
- specify electrical requirement.

Foundation:

Standard 4-inch (102 mm) thick reinforced concrete floor or pad. Holes for lag bolting to floor are provided.

Production Capabilities:

Panel width — From 6 to 18 inches (152.4 to 457 mm)

80 to 180 pasted panels/minute.

Operating temperature range: 250 to 900°F. (120 to 480°C.)

24-foot (7315 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 300° to 400°F. (148° to 204°C.)

exit temperature 120°F. (49°C.)

34-foot (10.363 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 250° to 280°F. (121° to 138°C.)

exit temperature 110°F. (43°C.)

Average Ambient Temperature: 100°F. one foot from oven (room at 70°F., oven at 400°F.)

Operation Requirements:

Personnel	One, semi-skilled
Standard Electrical	230/460 V., 3-Phase, 60 Hz. 9.3 KW
Electric Motors	1 HP, 1800 RPM @ 60 Hz., 143 T frame, TEFC 7½ HP, 1800 RPM @ 60 Hz., 213 T frame, TEFC 1½ HP, blower motor (integral)
Typical Electrical Consumption (at rated capacity)	7.5 KW/Hr. @ 230 V. or 460 V.
Fuel Requirements (Standard)	Natural Gas – 600 cu. ft. per hr. @ 6" W.C. (17 cu. meters per hr. @ 152 mm W.C.)

autoMAC ovens operate with either natural or LP gases on a gas supply pressure range of .22 psi (6 inch W.C.) to 1 psi (28 inch W.C.).

Typical Fuel Consumption (at rated capacity)	250 cu. ft. per hr. @ 250,000 BTU/Hr. (7.1 cu. meters/hr. @ 250,000 BTU/Hr.)
Hydraulics	None
Water	None
Compressed Air	None
Ventilation	Blower provided in oven, customer provides exhaust to roof. Slight negative pressure in oven due to 4000 C.F.M. recirculating blower. Approximately 2500 C.F.M. with 1500 C.F.M. exhausting.
Flue Discharge	Water vapor and products of complete combustion approximately 1500 C.F.M.

Approximate Unit Specifications:

Uncrated data autoMAC 24/autoMAC 34

Length: 408/528 inches (10,363/13,411 mm); Width: 54/54 inches (1372/1372 mm); Height: 85/85 inches (2159/2159 mm); Weight: 5500/7000 pounds (2500/3175 kg).

Crated data autoMAC 24

Crate A: 168L x 42W x 92H inches (4267L x 1067W x 2337H mm); Crate B: 168L x 37W x 61H inches (4267L x 940W x 1549H mm); Crate C: 144L x 37W x 46H inches (3658L x 940W x 1168H mm; Crated weight: 6500 pounds (2948kg).

Crated data autoMAC 34

Crate A: 193L x 43W x 86H inches (4902L x 1092W x 2184H mm); Crate B: 133L x 47W x 58H inches (3378L x 1194W x 1473H mm); Crate C: 170L x 38W x 59H inches (4318L x 965W x 1499H mm); Crate D: 145L x 42W x 46H inches (3683L x 1067W x 1168H mm); Crated weight: 7900 pounds (3583 kg).

MAC Engineering and Equipment Company, Inc.
2775 Meadowbrook Road, Benton Harbor, Michigan 49022 U.S.A.
Telephone: (616) 925-3295 Telex: 729448 Cable: MACQUIP

Printed in U.S.A.

data mac

CIRCULATE TO _____

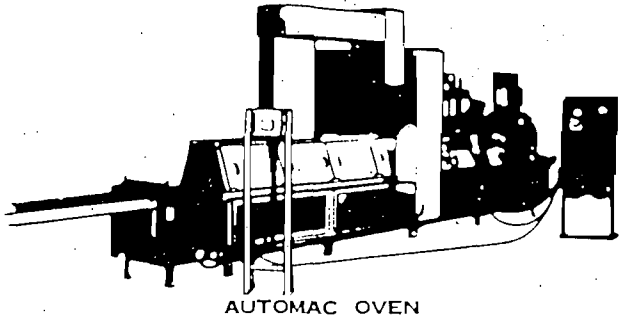
MAC Engineering and Equipment Company, Inc. 2775 Meadowbrook Road, Benton Harbor, Michigan 49022 U.S.A. Telephone: (616) 925-3295 Telex: 729448 Cable: MACQUIP

DECEMBER 18, 1984

OVERDRYING CAN DAMAGE PLATES AND WASTE FUEL

OVERDRYING YOUR PLATES ROBS YOUR BATTERIES OF FULL PERFORMANCE. WASTING FUEL IS A COSTLY EXPENSE.

MOST BATTERY MANUFACTURERS AGREE, PROPER PLATE DRYING IMMEDIATELY FOLLOWING PASTING SHOULD ONLY BE SKIN OR SURFACE DRYING TO PREVENT STACKED PLATES FROM STICKING TOGETHER DURING CURING/HYDROSETTING. OTHER-OVENS THAT OVER-EXPOSE YOUR PASTED PANEL TO TOO MUCH HEAT CAN PREVENT PROPER CURING AND BE A CAUSE OF PASTE PELLET FALLOUT

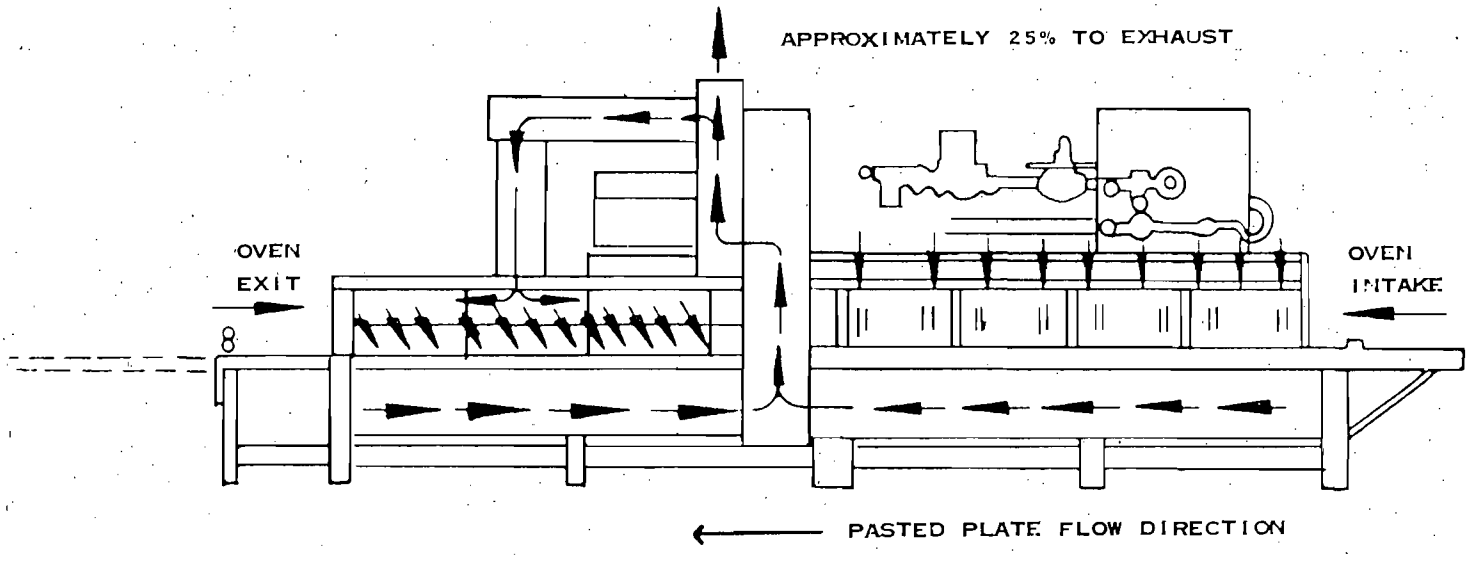


AUTOMAC OVEN

- MAC - ENERGY EFFICIENT DRYING

MAC IS A LEADER IN PRODUCING ENERGY EFFICIENT OVENS DESIGNED TO SURFACE FLASH DRY YOUR PLATES.

ALL MAC OVENS FEATURE A FUEL SAVING TWO-ZONE DESIGN. THE FIRST ZONE USES EITHER GAS OR ELECTRIC INFRA-RED HEAT, BUT YOU DON'T EXHAUST THAT HEATED AIR. YOU RE-USE IT IN THE SECOND OVEN ZONE. THE DIAGRAM ILLUSTRATES THE AIR FLOW IN ALL MAC OVENS.



RE-USING THE HEATED AIR FROM THE FIRST ZONE AGAIN IN THE SECOND ZONE IS THE LOW TEMPERATURE, ENERGY SAVINGS SECRET. THE ALREADY HEATED AIR FROM THE FIRST ZONE IS SWIRLED AROUND YOUR PASTED PLATES IN THE SECOND MAC OVEN ZONE. THE TOTAL COMBINATION OF INFRARED HEAT, RE-USED HOT AIR, AND FAST MOVING AIR RESULTS IN UP TO 50% ENERGY SAVINGS COMPARED TO OTHER-OVENS - AND IF THAT OTHER-OVEN OVERDRIES YOUR PLATES, YOUR BATTERY'S PERFORMANCE CAN SUFFER.

- MAC - LOWER DRYING TEMPERATURES

MAC OVENS USE LOWER DRYING TEMPERATURES TO AVOID POTENTIAL OVERDRYING. THE CHART SUMMARIZES REPORTS FROM USERS OF THE AUTOMAC 24 OVEN, WHICH USES EITHER NATURAL OR PROPANE GAS TO GENERATE THE INFRARED HEAT.

PASTER AND OVEN SPEED (PANELS/MINUTE)	PLATE DATA (146MM WIDE X 121 MM HIGH) THICKNESS INCH/MM	WEIGHT IN GRAMS	TYPICAL MOISTURE PERCENT ENTERING OVEN	PERCENT EXITING OVEN	TYPICAL OVEN TEMPERATURES (DEGREES IN CENTIGRADE) PASTE FROM BALL MILL OXIDE	PASTE FROM BARTON OXIDE
160	.047/1.2	90GR	12 - 13 %	8 - 9 %	370 - 400 °C	310 - 340 °C
80	.047/1.2	90	12 - 13	8 - 9	290 - 320	230 - 260
160	.083/2.1	125	12 - 13	8 - 9	450 - 480	390 - 420
80	.083/2.1	125	12 - 13	8 - 9	370 - 400	310 - 340

(ABOVE DATA SUMMARIZED FROM INDUSTRY REPORTS FOR INFORMATION ONLY. INDIVIDUAL CASES MAY VARY.)

- MAC OVENS - FEATURES AND MORE FEATURES

AT SPEEDS UP TO 180 AUTOMOTIVE PANELS PER MINUTE FOR AUTOMAC OVENS AND NEARLY 40 FEET PER MINUTE FOR INDUSTROMAC OVENS, YOUR MAC OVEN SURFACE DRYS PASTED PANELS IN A HORIZONTAL POSITION TO MINIMIZE PLATE DAMAGE AND PELLETING. COMPARE THESE ADDITIONAL FEATURES:

- LOWER DRYING TEMPERATURES - AVOIDS PLATE OVERDRYING AND SAVES FUEL. REDUCES THERMAL SHOCK AS PLATES EXIT OVEN, AND KEEPS YOUR PLANT COOLER.

- AUTOMATIC TEMPERATURE CONTROL AVAILABLE - MAINTAINS CONSTANT OVEN TEMPERATURE UNDER LOAD AND NO-LOAD CONDITIONS.

- OPEN-WEAVE STAINLESS STEEL BELT IN THE OVEN - THIN AND SOFT GRID PLATES REST IN A NON-DAMAGING HORIZONTAL POSITION DURING DRYING. BELT PROMOTES MORE EVEN DRYING, BEST PLATE SUPPORT, NO PLATE DROPPING, AND NO CHAIN BURN ON YOUR PLATES. NO COSTLY AND FREQUENT CHAIN REPLACEMENT. YOUR OPEN-WEAVE STAINLESS STEEL BELT LASTS AND LASTS - YEARS LONGER THAN CHAINS.

- INFINITELY VARIABLE FIRING RATE - 100,000 TO 700,000 BTU'S ON THE AUTOMAC 24 OVEN OR 200,000 TO 1,200,000 BTU'S ON THE INDUSTROMAC 300 OVEN. TYPICALLY, MAC OVENS OPERATE AT ONLY 25% TO 40% OF THEIR RATED MAXIMUM. OTHER-OVENS LIST THEIR TYPICAL OPERATING RANGE AS 60% TO 70% OF THEIR 1,200,000 BTU MAXIMUM. THIS MEANS MAC COULD PROVIDE OVER A 50% DAILY ENERGY SAVINGS FOR YOU.

- AIR EXHAUST WORKTABLE OPTION - CONVENIENT DUST AND DEBRIS COLLECTING WORK STATION AROUND YOUR OFFBEARING CONVEYOR. YOU HAVE A CLEANER PLANT ENVIRONMENT.

WHICHEVER MAC AUTOMOTIVE OR INDUSTRIAL OVEN BEST FITS YOUR NEEDS, MAC QUALITY AND PERFORMANCE IS THERE. IN OVER 50 COUNTRIES AROUND THE WORLD, MAC EQUIPMENT IS SAVING BATTERY MANUFACTURERS MONEY.

MAY WE SEND YOU FURTHER DESCRIPTIVE LITERATURE PLUS A PRICE AND DELIVERY QUOTATION TODAY?

Donald C. Melnik

DONALD C. MELNIK
VICE PRESIDENT MARKETING

P.S. EVERY MAC OVEN FEATURES 40 DEGREE ANGLED VENTING IN THE SECOND ZONE DUCTWORK. THIS DIRECTS THE RECIRCULATED AIR BACK TO THE OVEN'S CENTER. THE RESULT IS FASTER MOVING HOT AIR ACROSS THE PANEL SURFACES TO IMPROVE YOUR PLATE DRYING. ALSO, POTENTIAL LEAD-IN-AIR AT THE OVEN EXIT IS REDUCED SINCE THE AIR IS RETAINED IN YOUR OVEN.

GNB Incorporated

Supplement to section V, DER Form 17-1.202(1)

Potential Emissions Calculations

Calculation Basis: Potential emissions calculations are based on a production rate of 109.38 batteries/hour or 1.53 tons/hour of lead. The particulate emission factor is assumed one sixth of a three process operation since that most closely resembles the process.

Potential operating hours = 8760 hours/year

Potential yearly production = 958169 batteries/year

= 13414.4 tons of lead/year

Particulate = 15.4 lb/1000 batteries x 958.17 1000 batteries

= 14755.8 lb/year or 7.38 ton/year or 1.68 lb/hour

Lead = 2.43 lb/1000 batteries x 958.17 1000 batteries

= 2328.4 lb/year or 1.16 ton/year or 0.2658 lb/hour

Actual Emissions Calculations

Calculation Basis: Actual emissions calculations are based on a production rate of 109.38 batteries/hour or 1.53 tons/hour of lead. This source is limited to 4000 hours of operation per year.

Proposed operating schedule = 15 hr/day 5 day/wk 52 wk/yr

= 4000 hours/year

Actual yearly production = 437520 batteries/year

= 6125.3 tons of lead/year

Particulate = 15.4 lb/1000 batteries x 437.52 1000 batteries

= 6737.8 lb/yr or 3.37 ton/year or 1.68 lb/hour

Lead = 2.43 lb/1000 batteries x 437.52 1000 batteries

= 1063.2 lb/year or 0.53 ton/year or 0.2658 lb/hour

Particulate Emission factors from AP-42, table 7.15-1.
Lead Emission factors from AP-42, table E-1.

ES

FILE 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985

RECEIVED

FEB 27 1985

SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2;

Assembly, GNB ID #B3; Assembly, GNB ID #B4;

Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4;

Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:

Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.
Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111467
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:__________
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-__________

PROJECT SOURCE NAME:GNB/GAS FIRED PAST OVEN
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096755

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 96755

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from W.B. Battles Date Oct 23, 1985

Address P.O. Box 43140, St. Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address

Source of Revenue None

Revenue Code 001031 CK 226859 Application Number AC48-111467

By K Sulbek

AC 48-111467

E6

PAID
OCT 23 1985

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SAINT JOHNS RIVER DISTRICT

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

RECEIVED OCT 1985 ST. JOHNS River District

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
A. ALEXANDER
DISTRICT MANAGER

APPLICATION TO ~~OPERATE~~/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Paste Oven [ ] New[1] [X] Existing[1]

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

COMPANY NAME: GNB INCORPORATED COUNTY: Orange

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) Exhaust of Gas Fired Flash Paste Drying Oven

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81 ° 24 ' 02 "W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/8/85 Telephone No. 612/681-5227

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

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

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

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

Signed John W. Bottorf, Jr.

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)

Florida Registration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

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.

The project consists of a MAC24 Paste Drying Oven fired with natural gas. The oven is used to dry lead oxide paste that is applied to cast lead grids. The project as described should result in full compliance with all applicable regulations.

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

Start of Construction N/A Completion of Construction N/A

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 applicsation for operation permit.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E. Requested permitted equipment operating time: hrs/day 15 ; days/wk 5 ; wks/yr 52 ; if power plant, hrs/yr_____; if seasonal, describe: Not seasonal

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

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

   a. If yes, has "offset" been applied? _____

   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. No

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

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

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

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

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		
Cast Lead Grids	Lead	1.4×10^{-4}	1531.25	
	Particulate	5.5×10^{-2}		
Lead Oxide Paste	Lead	1.4×10^{-4}	1531.25	
	Particulate	5.5×10^{-2}		

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

1. Total Process Input Rate (lbs/hr): 3062.5

2. Product Weight (lbs/hr): 3062.5

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	0.2658	0.53	See attached SIP Documents	0.0048	2328.4	1.16	
Particulate	1.68	3.37	See attached SIP Documents	5% Opacity	14,756	7.38	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	206.9 CFH	243.4 CFH	0.25

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

Fuel Analysis:

Percent Sulfur: <0.01% Percent Ash: <0.01%

Density: 0.044 Lb./CF Typical Percent Nitrogen: 0.49%

Heat Capacity: 1027 BTU/CF N/A 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 dispoaal.

Solid waste generated by process is collected and reused in the process. No liquid wastes are generated.

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

Stack Height: 27 ft. Stack Diameter: 2.5 ft.

Gas Flow Rate: 800 ACFM 650 DSCFM Gas Exit Temperature: 160 °F.

Water Vapor Content: 5 % Velocity: 2.72 FPS

SECTION IV: INCINERATOR INFORMATION

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

Description of Waste _____

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

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

Manufacturer _____

Date Constructed _____ Model No. _____

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

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

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

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

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

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

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

_____

_____

_____

_____

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

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

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

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

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

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

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

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

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

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

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

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

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

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

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

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

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

j. Applicability to manufacturing processes:

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

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conatruction materials and process chemicals:

j. Applicability to manufacturing processes:

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

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

F. Deacribe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Coat:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

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

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

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

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

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

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

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

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

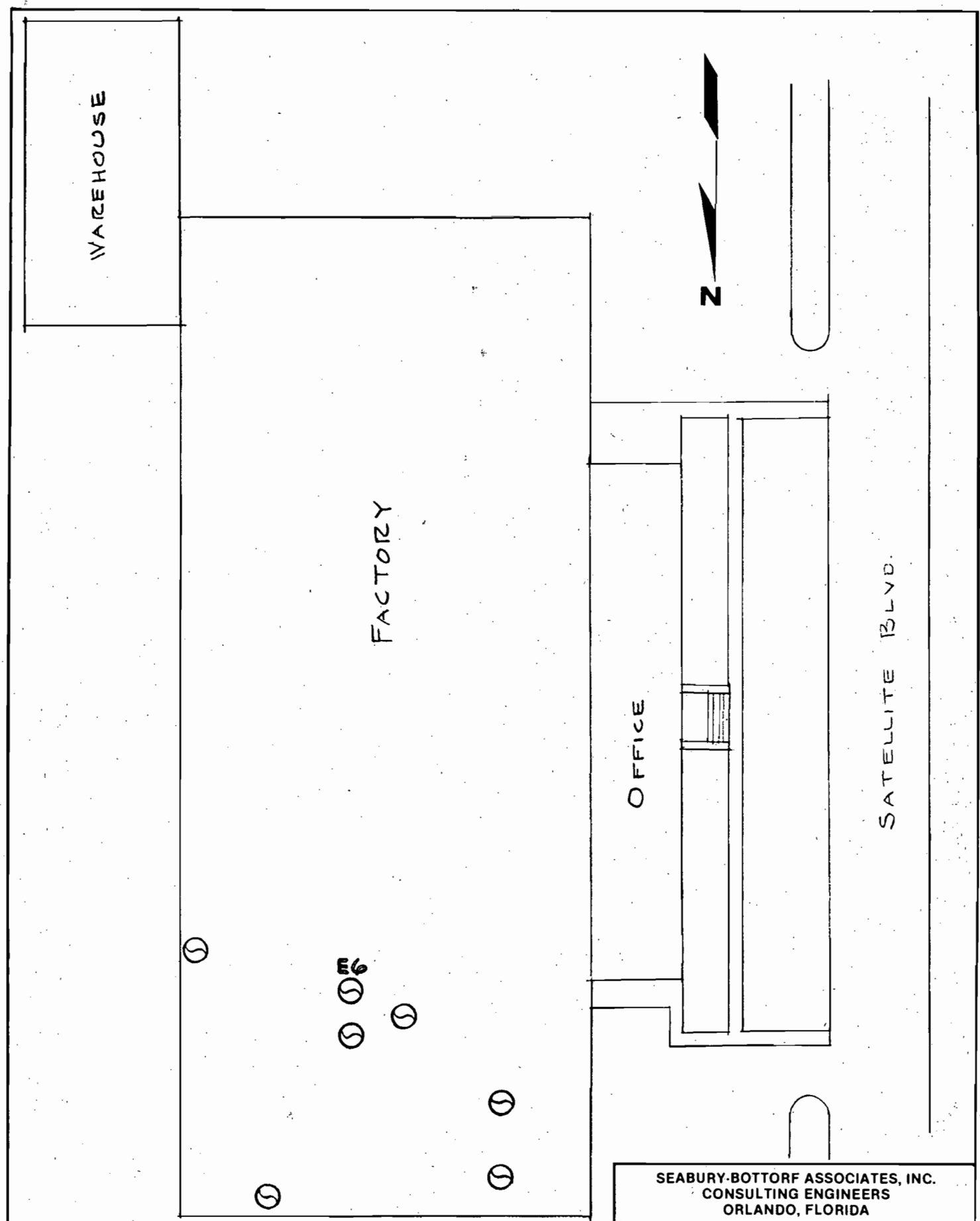
E. Emission Data Used in Modeling

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.

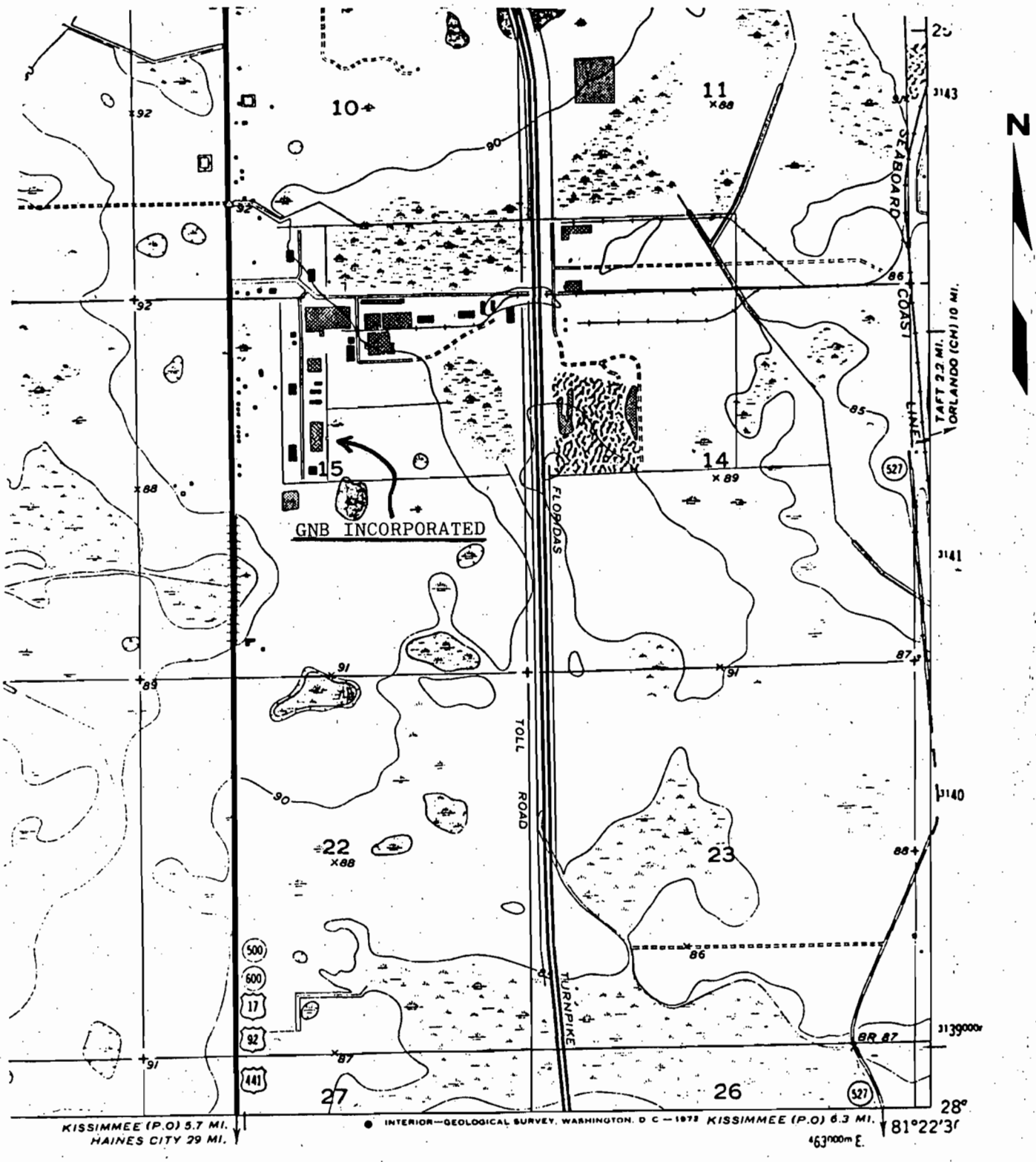


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES. ~	DWN. ~	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.

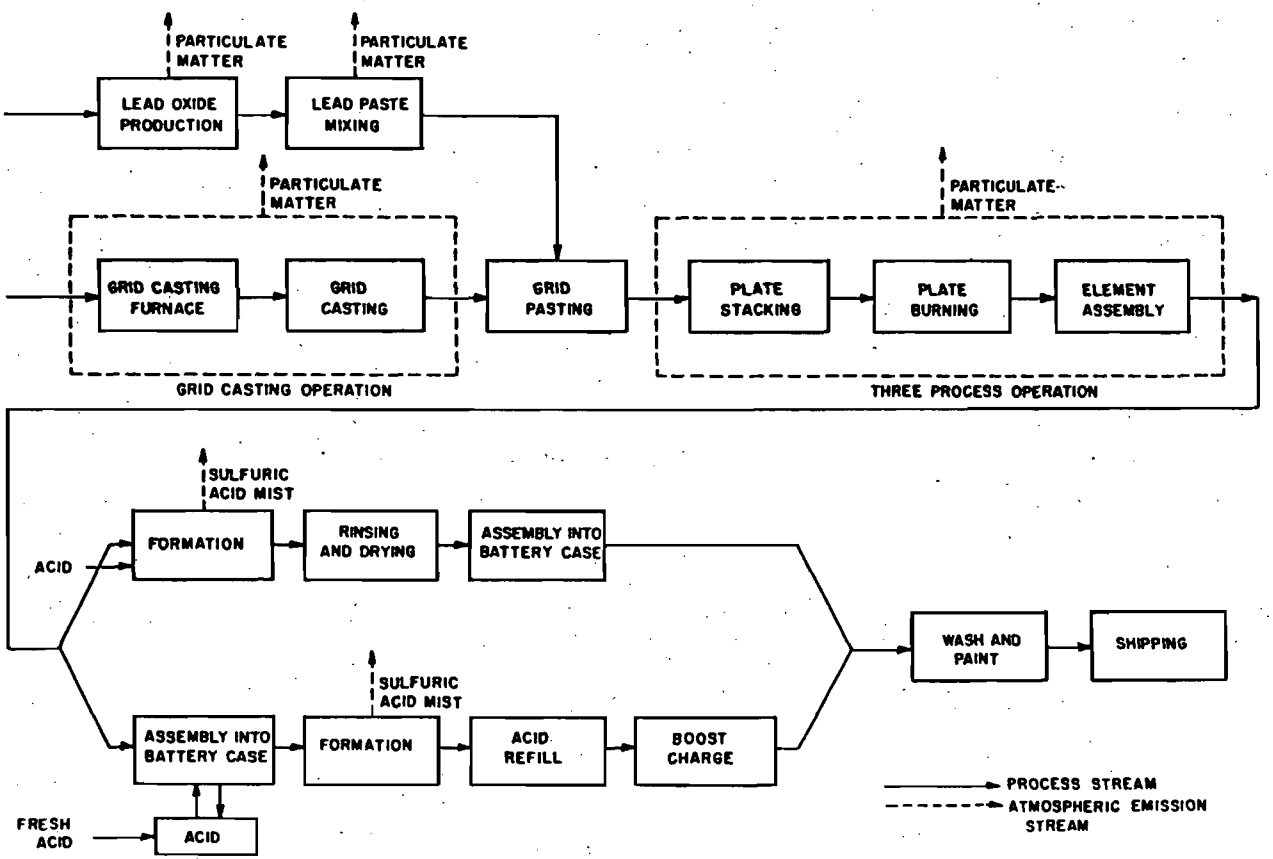
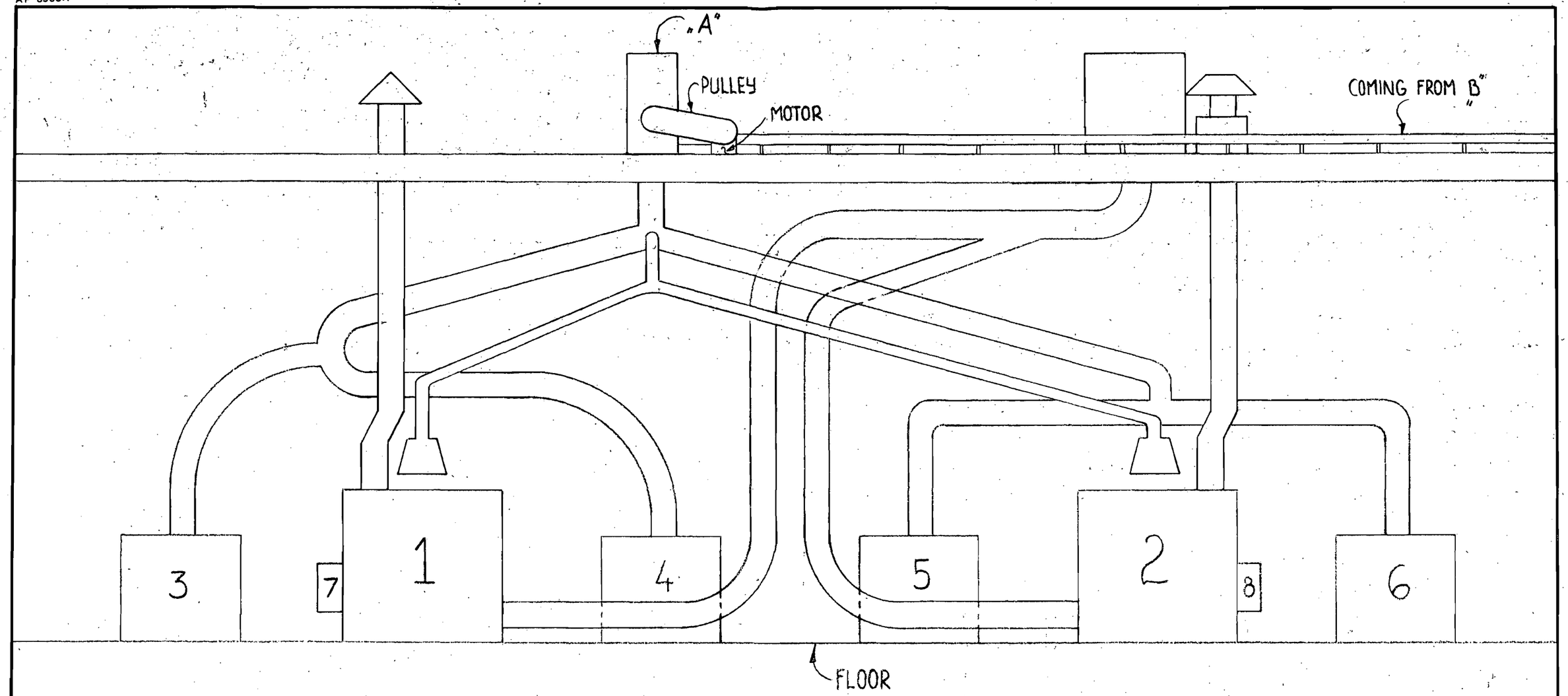


Figure 7.15-1. Process flow diagram for storage battery production.

AF 8358A



WEST ELEVATION

1 AND 2 - PASTE OVEN
3 THRU STACKER
7 AND 8 - FAN MOTOR

PASTE OVENS, STACKERS AND EXHAUST SYSTEM

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

G N B - INCORPORATED
ORLANDO - FL.

DES.	DWN.	115-7-8
SCALE NONE	DATE 8-27-85	DRAWING NO.

Dry up to 180 pasted automotive panels per minute – SAVES you fuel.

The autoMAC oven features an energy saving combination of gas infrared and convection heating for surface drying automotive size pasted panels at speeds adjustable from 80 to 180 panels per minute. AutoMAC series of ovens is available in a 24 or 34 foot (7,315 or 10,363 mm) length. Each is designed to handle thin plates made from regular, low, or non-antimony grids.

• ENERGY-EFFICIENT – Combination infra-red and convection heating.

The autoMAC oven series features a production proven two zone oven construction. A downdraft ventilating system recycles heat from the infra-red-heated zone and reuses it in a convection-heated zone. The system provides complete evacuation of gases and helps prevent escape of heat–saving you energy. Additional fuel savings are generated by the automatic temperature control (standard) which keeps oven temperature constant under load or no-load conditions. Heavily fiberglass insulated lay-on access doors also help retain heat.

• FLEXIBLE – range of speeds, BTU input.

AutoMAC is available as a 24 or 34 foot (7,315 or 10,363 mm) oven, each unit having built-in 2 foot (610 mm) incoming and outlet conveyors. Each model is half infra-red heated zone and half convection-heated zone, allowing the 34 foot model to provide the same quality drying at lower operating temperatures. A 1 h.p. electric motor with a gear-reducer drive controls oven speeds, from 80 to 180 plates per minute. The firing rate is infinitely variable from 100,000 to 700,000 BTU's per hour for the model 24. The model 34 is variable from 100,000 to 1,050,000 BTU's per hour. For safety, autoMAC ovens have an automatic spark ignition. Lower drying temperatures mean gas energy savings, lower thermal shock for plates at oven exit, extended oven life and less day-to-day maintenance.

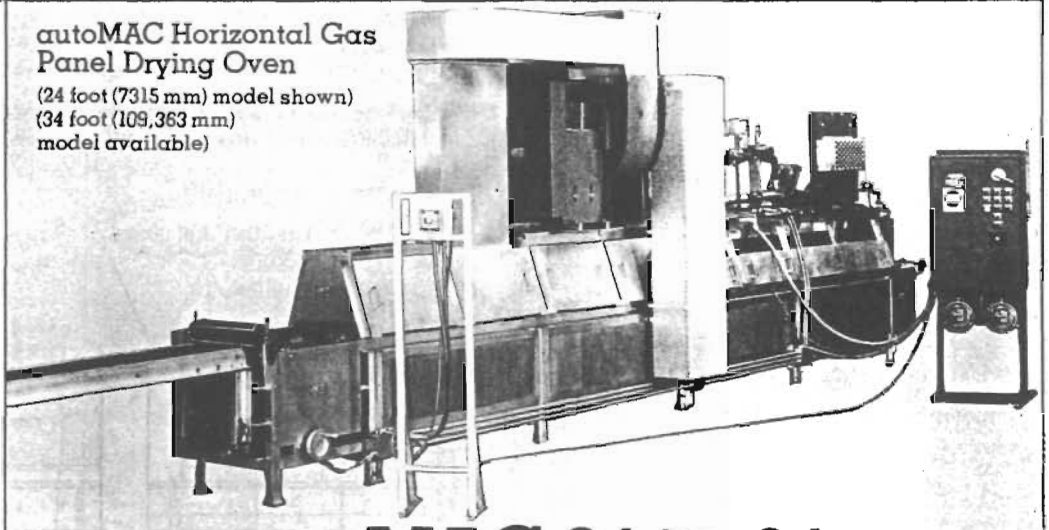
• EASY TO OPERATE – one operator, simple controls, uncomplicated design.

A single operator can handle the operation because controls are simple. For your production flexibility, operator controls can be built into either the left or right side of the oven (when facing the incoming conveyor). Horizontal plate handling minimizes plate damage and reduces pelleting. The little debris that drops hits the slanted oven floor and is directed to the four, easily accessible debris clean-out doors (six on 34-foot model). Low ambient temperatures keep operator comfortable, protect equipment and allow mounting of blowers, burners and controls above oven, out of the dirt and hazards of floor mounting.

• EASY UNLOADING

A 10-foot (3048 mm) horizontal off-bearing conveyor using four block chains provides for horizontal shingle stacking and unloading. A 1 h.p. motor drives the belt oven conveyor and the 4-chain off-bearing conveyor.

autoMAC Horizontal Gas Panel Drying Oven
(24 foot (7315 mm) model shown)
(34 foot (109,363 mm) model available)



autoMAC 24 ~~or 34~~ oven

• SAFETY FEATURES – electrical and combustion controls include safety and product protection.

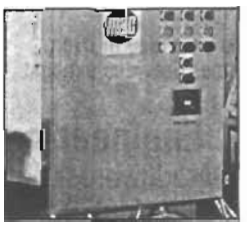
Failure of any important components to operate properly automatically interrupts fuel gas supply, resulting in burner shutoff. Main electric control panel is mounted on a separate stand to reduce potential harm to components from heat or vibration. Automatic temperature controller is on a separate stand near oven outlet.

• QUALITY PRODUCT – top results with soft-metal grids.

Even thin, low-and non-antimony grids are positively conveyed through the drier. Free-floating belt conveyor support rails keep plates flat and even for proper surface drying. Rails are free to expand so they will not warp (which could cause a production interruption), and can be lifted out in five-foot (1524 mm) sections.

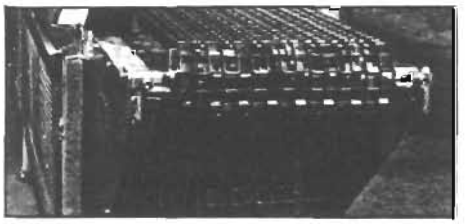
Infra-red Zone/Convection Zone saves energy by using heat to its fullest.

Infra-red zone (left) has two rows of burners mounted above the oven conveyor so dust and dirt does not clog them. A 1½ H.P. combustion-air blower sets up downdraft and begins recirculation of heated air. (far left). A 7½ H.P. blower (right) creates negative pressure in the infrared zone to draw the heat to the convection zone (at right) and provide positive exhaust of gas and fumes. (photo shows eight access doors removed from one side–34 foot (10,363 mm) model has 12 removable doors on each side). The autoMAC ovens operate with either natural or LP gases.



Free standing control panel may be mounted remotely or near oven. Simple controls are grouped for easy operation.

Lay-on, removable access doors have two inches of high-temperature fiberglass insulation completely enclosed in steel. Operator can get into any section of the furnace quickly and easily. (Photo shows last burner in infra-red zone and beginning of convection zone.)



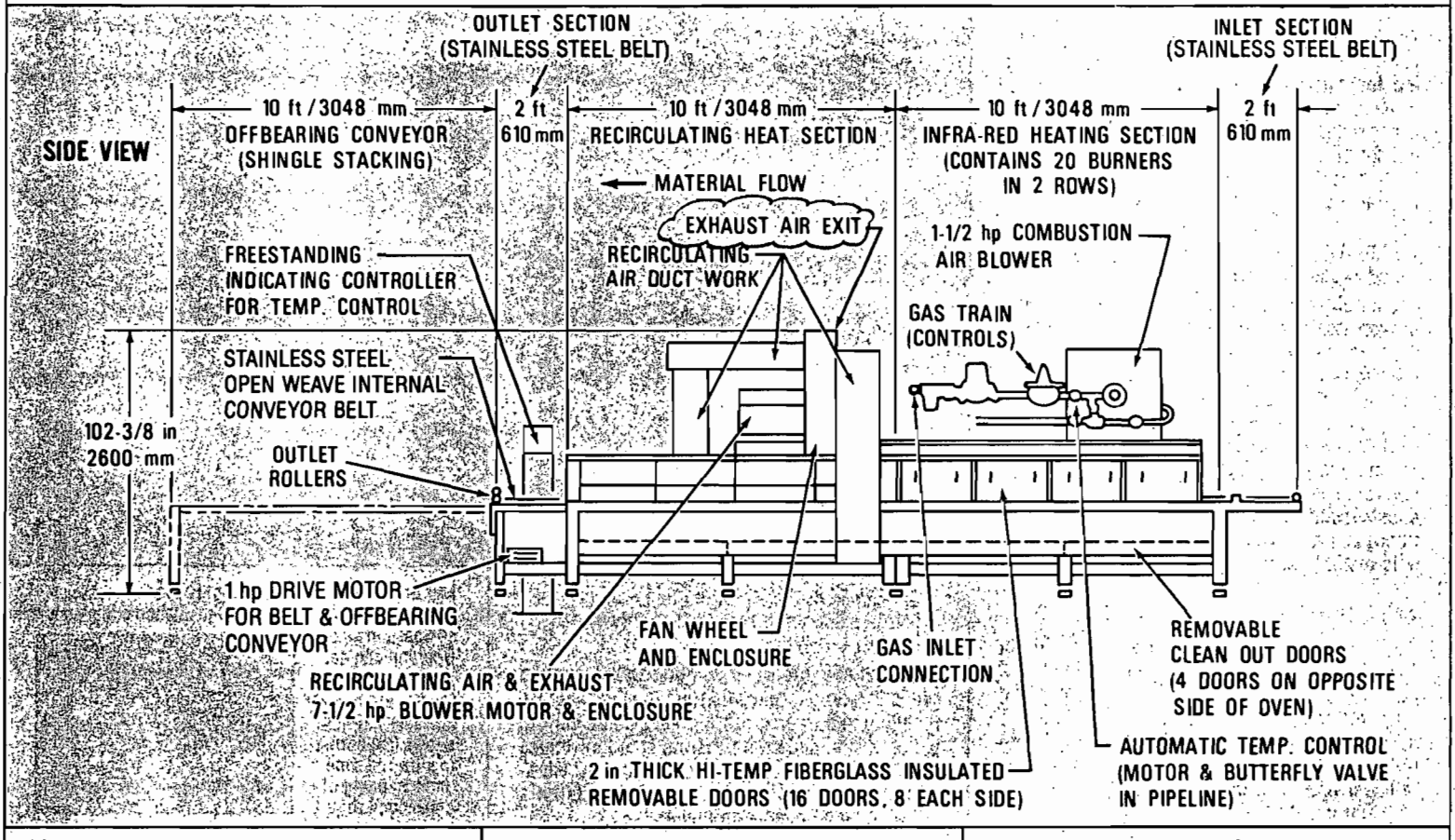
Horizontal, open weave stainless steel belt. (1-inch square openings) moves plates through the oven. No vertical hanging to bend softer, low antimony or calcium lead alloy grids. Open weave provides more even drying (33% better air flow below plates) and eliminates chain burn.

Automatic Temperature Control saves fuel.

Temperature control maintains more economical oven temperature. Controller maintains constant oven temperature under "load" or "no-load" conditions saving energy and providing an established temperature even when plate flow interruptions occur. Standard, single-point firing rate control operates a separate motor and butterfly valve in the pipeline. Manometer (water gauge) provides a separate indication of firing rate.

Slanted oven floor gives easy clean-out. Oven floor is severely slanted to direct pelleting and debris to the four easily accessible clean-out doors (six on 34-foot model).

TECHNICAL DATA
autoMAC 24 or ~~34~~ Ovens



Horizontal Gas Drying Ovens for Automotive Panels

Required User Data:

- specify 24 or 34 autoMAC
- specify gas type and supply pressure.
- specify right or left hand operator control location (when facing the incoming conveyor).
- specify electrical requirement.

Foundation:

Standard 4-inch (102 mm) thick reinforced concrete floor or pad. Holes for lag bolting to floor are provided.

Production Capabilities:

Panel width — From 6 to 18 inches (152.4 to 457 mm)

80 to 180 pasted panels/minute.

Operating temperature range: 250 to 900°F. (120 to 480°C.)

24-foot (7315 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 300° to 400°F. (148° to 204°C.)

exit temperature 120°F. (49°C.)

34-foot (10.363 mm) model

Typical plate – .050 inch (1.3 mm) thick

drying temperature 250° to 280°F. (121° to 138°C.)

exit temperature 110°F. (43°C.)

Average Ambient Temperature: 100°F. one foot from oven (room at 70°F., oven at 400°F.)

Operation Requirements:

Personnel	One, semi-skilled
Standard Electrical	230/460 V., 3-Phase, 60 Hz. 9.3 KW
Electric Motors	1 HP, 1800 RPM @ 60 Hz., 143 T frame, TEFC 7½ HP, 1800 RPM @ 60 Hz., 213 T frame, TEFC 1½ HP, blower motor (integral)
Typical Electrical Consumption (at rated capacity)	7.5 KW/Hr. @ 230 V. or 460 V.
Fuel Requirements (Standard)	Natural Gas – 600 cu. ft. per hr. @ 6" W.C. (17 cu. meters per hr. @ 152 mm W.C.)

autoMAC ovens operate with either natural or LP gases on a gas supply pressure range of .22 psi (6 inch W.C.) to 1 psi (28 inch W.C.).

Typical Fuel Consumption (at rated capacity)	250 cu. ft. per hr. @ 250,000 BTU/Hr. (7.1 cu. meters/hr. @ 250,000 BTU/Hr.)
Hydraulics	None
Water	None
Compressed Air	None
Ventilation	Blower provided in oven, customer provides exhaust to roof. Slight negative pressure in oven due to 4000 C.F.M. recirculating blower. Approximately 2500 C.F.M. with 1500 C.F.M. exhausting.
Flue Discharge	Water vapor and products of complete combustion approximately 1500 C.F.M.

Approximate Unit Specifications:

Uncrated data autoMAC 24/autoMAC 34

Length: 408/528 inches (10,363/13,411 mm); Width: 54/54 inches (1372/1372 mm); Height: 85/85 inches (2159/2159 mm); Weight: 5500/7000 pounds (2500/3175 kg).

Crated data autoMAC 24

Crate A: 168L x 42W x 92H inches (4267L x 1067W x 2337H mm); Crate B: 168L x 37W x 61H inches (4267L x 940W x 1549H mm); Crate C: 144L x 37W x 46H inches (3658L x 940W x 1168H mm; Crated weight: 6500 pounds (2948kg).

Crated data autoMAC 34

Crate A: 193L x 43W x 86H inches (4902L x 1092W x 2184H mm); Crate B: 133L x 47W x 58H inches (3378L x 1194W x 1473H mm); Crate C: 170L x 38W x 59H inches (4318L x 965W x 1499H mm); Crate D: 145L x 42W x 46H inches (3683L x 1067W x 1168H mm); Crated weight: 7900 pounds (3583 kg).

MAC Engineering and Equipment Company, Inc.
2775 Meadowbrook Road, Benton Harbor, Michigan 49022 U.S.A.
Telephone: (616) 925-3295 Telex: 729448 Cable: MACQUIP

Printed in U.S.A.

data mac

CIRCULATE TO _____

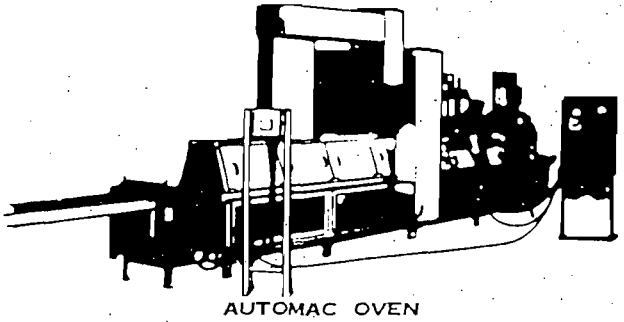
MAC Engineering and Equipment Company, Inc. 2775 Meadowbrook Road. Benton Harbor. Michigan 49022 U.S.A. Telephone: (616) 925-3295 Telex: 729448 Cable: MACQUIP

DECEMBER 18, 1984

OVERDRYING CAN DAMAGE PLATES AND WASTE FUEL

OVERDRYING YOUR PLATES ROBS YOUR BATTERIES OF FULL PERFORMANCE. WASTING FUEL IS A COSTLY EXPENSE.

MOST BATTERY MANUFACTURERS AGREE, PROPER PLATE DRYING IMMEDIATELY FOLLOWING PASTING SHOULD ONLY BE SKIN OR SURFACE DRYING TO PREVENT STACKED PLATES FROM STICKING TOGETHER DURING CURING/HYDROSETTING. OTHER-OVENS THAT OVER-EXPOSE YOUR PASTED PANEL TO TOO MUCH HEAT CAN PREVENT PROPER CURING AND BE A CAUSE OF PASTE PELLET FALLOUT.

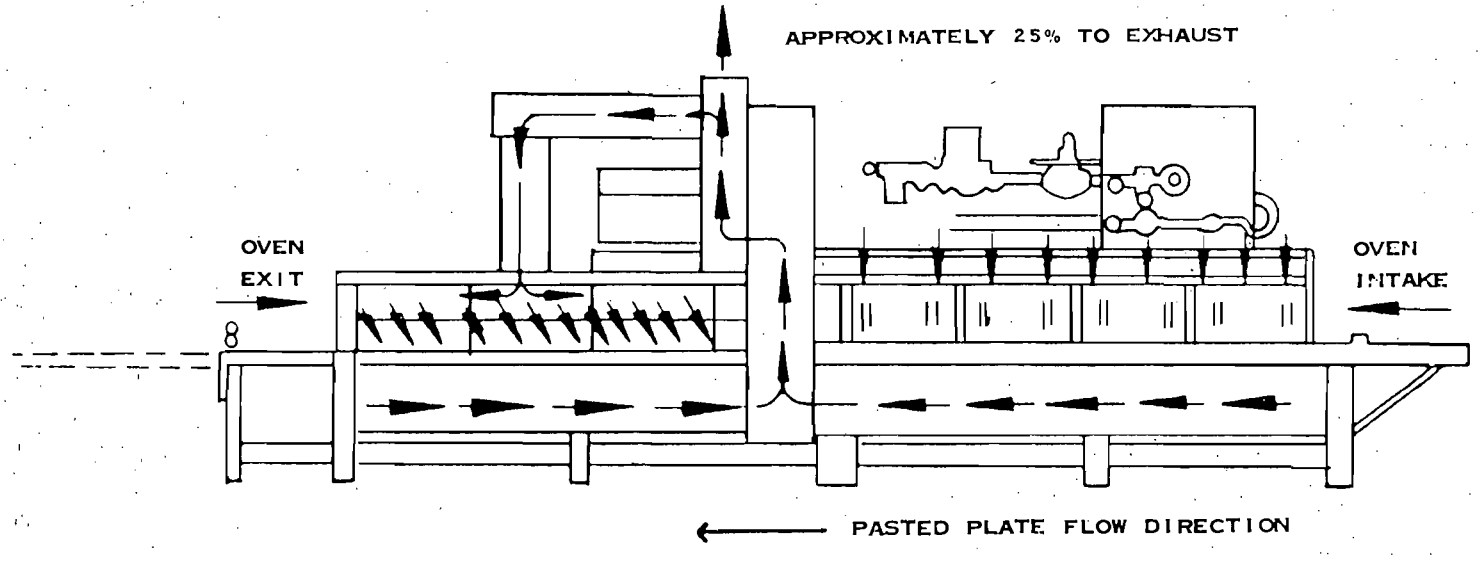


AUTOMAC OVEN

- MAC - ENERGY EFFICIENT DRYING

MAC IS A LEADER IN PRODUCING ENERGY EFFICIENT OVENS DESIGNED TO SURFACE FLASH DRY YOUR PLATES.

ALL MAC OVENS FEATURE A FUEL SAVING TWO-ZONE DESIGN. THE FIRST ZONE USES EITHER GAS OR ELECTRIC INFRA-RED HEAT, BUT YOU DON'T EXHAUST THAT HEATED AIR. YOU RE-USE IT IN THE SECOND OVEN ZONE. THE DIAGRAM ILLUSTRATES THE AIR FLOW IN ALL MAC OVENS.



RE-USING THE HEATED AIR FROM THE FIRST ZONE AGAIN IN THE SECOND ZONE IS THE LOW TEMPERATURE, ENERGY SAVINGS SECRET. THE ALREADY HEATED AIR FROM THE FIRST ZONE IS SWIRLED AROUND YOUR PASTED PLATES IN THE SECOND MAC OVEN ZONE. THE TOTAL COMBINATION OF INFRARED HEAT, RE-USED HOT AIR, AND FAST MOVING AIR RESULTS IN UP TO 50% ENERGY SAVINGS COMPARED TO OTHER-OVENS - AND IF THAT OTHER-OVEN OVERDRIES YOUR PLATES, YOUR BATTERY'S PERFORMANCE CAN SUFFER.

- MAC - LOWER DRYING TEMPERATURES

MAC OVENS USE LOWER DRYING TEMPERATURES TO AVOID POTENTIAL OVERDRYING. THE CHART SUMMARIZES REPORTS FROM USERS OF THE AUTOMAC 24 OVEN, WHICH USES EITHER NATURAL OR PROPANE GAS TO GENERATE THE INFRARED HEAT.

PASTER AND OVEN SPEED (PANELS/MINUTE)	PLATE DATA (146MM WIDE X 121 MM HIGH) THICKNESS INCH/MM	WEIGHT IN GRAMS	TYPICAL MOISTURE PERCENT ENTERING OVEN	PERCENT EXITING OVEN	TYPICAL OVEN TEMPERATURES (DEGREES IN CENTIGRADE) PASTE FROM BALL MILL OXIDE	PASTE FROM BARTON OXIDE
160	.047/1.2	90 GR	12 - 13 %	8 - 9 %	370 - 400 °C	310 - 340 °C
80	.047/1.2	90	12 - 13	8 - 9	290 - 320	230 - 260
160	.083/2.1	125	12 - 13	8 - 9	450 - 480	390 - 420
80	.083/2.1	125	12 - 13	8 - 9	370 - 400	310 - 340

(ABOVE DATA SUMMARIZED FROM INDUSTRY REPORTS FOR INFORMATION ONLY. INDIVIDUAL CASES MAY VARY.)

- MAC OVENS - FEATURES AND MORE FEATURES

AT SPEEDS UP TO 180 AUTOMOTIVE PANELS PER MINUTE FOR AUTOMAC OVENS AND NEARLY 40 FEET PER MINUTE FOR INDUSTROMAC OVENS, YOUR MAC OVEN SURFACE DRYS PASTED PANELS IN A HORIZONTAL POSITION TO MINIMIZE PLATE DAMAGE AND PELLETING. COMPARE THESE ADDITIONAL FEATURES!

- LOWER DRYING TEMPERATURES - AVOIDS PLATE OVERDRYING AND SAVES FUEL. REDUCES THERMAL SHOCK AS PLATES EXIT OVEN, AND KEEPS YOUR PLANT COOLER.

- AUTOMATIC TEMPERATURE CONTROL AVAILABLE - MAINTAINS CONSTANT OVEN TEMPERATURE UNDER LOAD AND NO-LOAD CONDITIONS.

- OPEN-WEAVE STAINLESS STEEL BELT IN THE OVEN - THIN AND SOFT GRID PLATES REST IN A NON-DAMAGING HORIZONTAL POSITION DURING DRYING. BELT PROMOTES MORE EVEN DRYING, BEST PLATE SUPPORT, NO PLATE DROPPING, AND NO CHAIN BURN ON YOUR PLATES. NO COSTLY AND FREQUENT CHAIN REPLACEMENT. YOUR OPEN-WEAVE STAINLESS STEEL BELT LASTS AND LASTS - YEARS LONGER THAN CHAINS.

- INFINITELY VARIABLE FIRING RATE - 100,000 TO 700,000 BTU'S ON THE AUTOMAC 24 OVEN OR 200,000 TO 1,200,000 BTU'S ON THE INDUSTROMAC 300 OVEN. TYPICALLY, MAC OVENS OPERATE AT ONLY 25% TO 40% OF THEIR RATED MAXIMUM. OTHER-OVENS LIST THEIR TYPICAL OPERATING RANGE AS 60% TO 70% OF THEIR 1,200,000 BTU MAXIMUM. THIS MEANS MAC COULD PROVIDE OVER A 50% DAILY ENERGY SAVINGS FOR YOU.

- AIR EXHAUST WORKTABLE OPTION - CONVENIENT DUST AND DEBRIS COLLECTING WORK STATION AROUND YOUR OFFBEARING CONVEYOR. YOU HAVE A CLEANER PLANT ENVIRONMENT.

WHICHEVER MAC AUTOMOTIVE OR INDUSTRIAL OVEN BEST FITS YOUR NEEDS, MAC QUALITY AND PERFORMANCE IS THERE. IN OVER 50 COUNTRIES AROUND THE WORLD, MAC EQUIPMENT IS SAVING BATTERY MANUFACTURERS MONEY.

MAY WE SEND YOU FURTHER DESCRIPTIVE LITERATURE PLUS A PRICE AND DELIVERY QUOTATION TODAY?

Donald C. Melnik

DONALD C. MELNIK
VICE PRESIDENT MARKETING

P.S. EVERY MAC OVEN FEATURES 40 DEGREE ANGLED VENTING IN THE SECOND ZONE DUCTWORK. THIS DIRECTS THE RECIRCULATED AIR BACK TO THE OVEN'S CENTER. THE RESULT IS FASTER MOVING HOT AIR ACROSS THE PANEL SURFACES TO IMPROVE YOUR PLATE DRYING. ALSO, POTENTIAL LEAD-IN-AIR AT THE OVEN EXIT IS REDUCED SINCE THE AIR IS RETAINED IN YOUR OVEN.

GNB Incorporated

Supplement to section V, DER Form 17-1.202(1)

Potential Emissions Calculations

Calculation Basis: Potential emissions calculations are based on a production rate of 109.38 batteries/hour or 1.53 tons/hour of lead. The particulate emission factor is assumed one sixth of a three process operation since that most closely resembles the process.

Potential operating hours = 8760 hours/year

Potential yearly production = 958169 batteries/year

= 13414.4 tons of lead/year

Particulate = 15.4 lb/1000 batteries x 958.17 1000 batteries

= 14755.8 lb/year or 7.38 ton/year or 1.68 lb/hour

Lead = 2.43 lb/1000 batteries x 958.17 1000 batteries

= 2328.4 lb/year or 1.16 ton/year or 0.2658 lb/hour

Actual Emissions Calculations

Calculation Basis: Actual emissions calculations are based on a production rate of 109.38 batteries/hour or 1.53 tons/hour of lead. This source is limited to 4000 hours of operation per year.

Proposed operating schedule = 15 hr/day 5 day/wk 52 wk/yr

= 4000 hours/year

Actual yearly production = 437520 batteries/year

= 6125.3 tons of lead/year

Particulate = 15.4 lb/1000 batteries x 437.52 1000 batteries

= 6737.86 lb/yr or 3.37 ton/year or 1.68 lb/hour

Lead = 2.43 lb/1000 batteries x 437.52 1000 batteries

= 1063.2 lb/year or 0.53 ton/year or 0.2658 lb/hour

Particulate Emission factors from AP-42, table 7.15-1.
Lead Emissions factors from AP-42, table E-1.

E6

File 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985

RECEIVED

FEB 27 1985

SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2; Assembly, GNB ID #B3; Assembly, GNB ID #B4; Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4; Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:

Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.
Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.

APPLICATION TRACKING SYSTEM 10/25/85

APPL NO:111468
APPL RECVD:10/23/85 TYPE CODE:AC SUBCODE:99 LAST UPDATE:10/25/85
DER OFFICE RECVD:ORL DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:T SAWICKI
APPL STATUS:AC DATE:10/23/85 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:30 COUNTY:48
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.23.58/81.24.02
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:GNB/VACUUM CLEANING SYSTEM
STREET:11331 SATELLITE BLVD. CITY:ORLANDO
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:HATTERSCHIDE, T. E.
STREET:POST OFFICE BOX 64100 CITY:ST PAUL
STATE:MN ZIP:55164 PHONE:612-681-5227
AGENT NAME:SEABURY-BOTTORG ASSOCIATES
STREET:4595 PARKBREEZE COURT CITY:ORLANDO
STATE:FL ZIP:32808 PHONE:305-298-0846
FEE #1 DATE PAID:10/23/85 AMOUNT PAID:00100 RECEIPT NUMBER:00096756

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

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

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 96756

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from FNB Bottineau Date Oct 23, 1985

Address P.O. Box 43140, St Paul Mn 55164 Dollars $ 100.00

Applicant Name & Address

Source of Revenue None

Revenue Code 001031 CK 226860 Application Number AC48-111468

By K Seibel

AC 48-111468

B7.

OCT 23 19

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SAINT JOHNS
RIVER DISTRICT

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803-3767

OCT 1985
ST. JOHNS
River District

APPLICATION TO ~~OPERATE~~ CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Central Vacuum Cleaning System [ ] New[1] [X] Existing[1]

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

COMPANY NAME: GNB INCORPORATED COUNTY: Orange

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) Hoffman Model 4208A Vacuum System with a Hoffman Model 481 Vacumatic Separator

SOURCE LOCATION: Street 11331 Satellite Blvd. City Orlando

UTM: East 17-460.300 North 3142.300

Latitude 28 ° 23 ' 58 "N Longitude 81 ° 24 ' 02 "W

APPLICANT NAME AND TITLE: T. E. Hatterschide, Director of Manufacturing Engineering

APPLICANT ADDRESS: P. O. Box 64100, St. Paul, MN 55164-0100

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of GNB Incorporated

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: T. E. Hatterschide

T. E. Hatterschide, Director of Manufacturing Engineering
Name and Title (Please Type)

Date: 10/18/85 Telephone No. 612/681-5227

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

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

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

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

Signed _____

John W. Bottorf, Jr.
Name (Please Type)

Seabury-Bottorf Associates, Inc.
Company Name (Please Type)

4595 Parkbreeze Ct., Orlando, FL 32808-1057
Mailing Address (Please Type)

Florida Regiatration No. 13089 Date: Sept. 13, 1985 Telephone No. 305/298-0846

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.

The project consists of a Hoffman Model 4208A Central Vacuum System that is used for periodic cleanup of plant and equipment. The project as described should result in full compliance with all applicable regulations.

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

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

These sources are addressed and emission limits were set in the State implementation plan for lead. See attached letter of February 26, 1985.

E. Requested permitted equipment operating time: hrs/day 15 ; days/wk 5 ; wks/yr 52 ; if power plant, hrs/yr ____; if seasonal, describe: Not seasonal · The device operates approximately 4000 Hrs./Yr. but 75 to 80% of the time there is no input to the system because nothing is being cleaned.

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

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

   a. If yes, has "offset" been applied? ____

   b. If yes, has "Lowest Achievable Emiseion 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. No

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

4. Do "Standards of Performance for New Stationary Sources" (NSPS) spply 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.

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

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

N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

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

1. Total Process Input Rate (lbs/hr): Highly variable and can only be based on total plant production.

2. Product Weight (lbs/hr): N/A

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

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Lead	0.0088	0.02	See attached SIP Document	0.0096	76.7	0.04	
Particulate	3.37	6.74	See attached SIP Document	5% Opacity	29,510	14.76	

[1]See Section V, Item 2.

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

[3]Calculated from operating rate and applicable standard.

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

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Hoffman Model 481 Vacumatic Separator w/ A/C ratio of 2.1	Particulate Lead	Unknown	Unknown	

E. Fuels N/A

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: N/A

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

_____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

_____

_____

_____

_____

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 28 ft. Stack Diameter: 0.5 ft.

Gas Flow Rate: 700 ACFM 650 DSCFM Gas Exit Temperature: 90 °F.

Water Vapor Content: 1 to 2 % Velocity: 23.3 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in avsilable space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available apace, and operate within proposed levels:

F. Deacribe 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. Manufscturer:

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 muat state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^2* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (8) 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

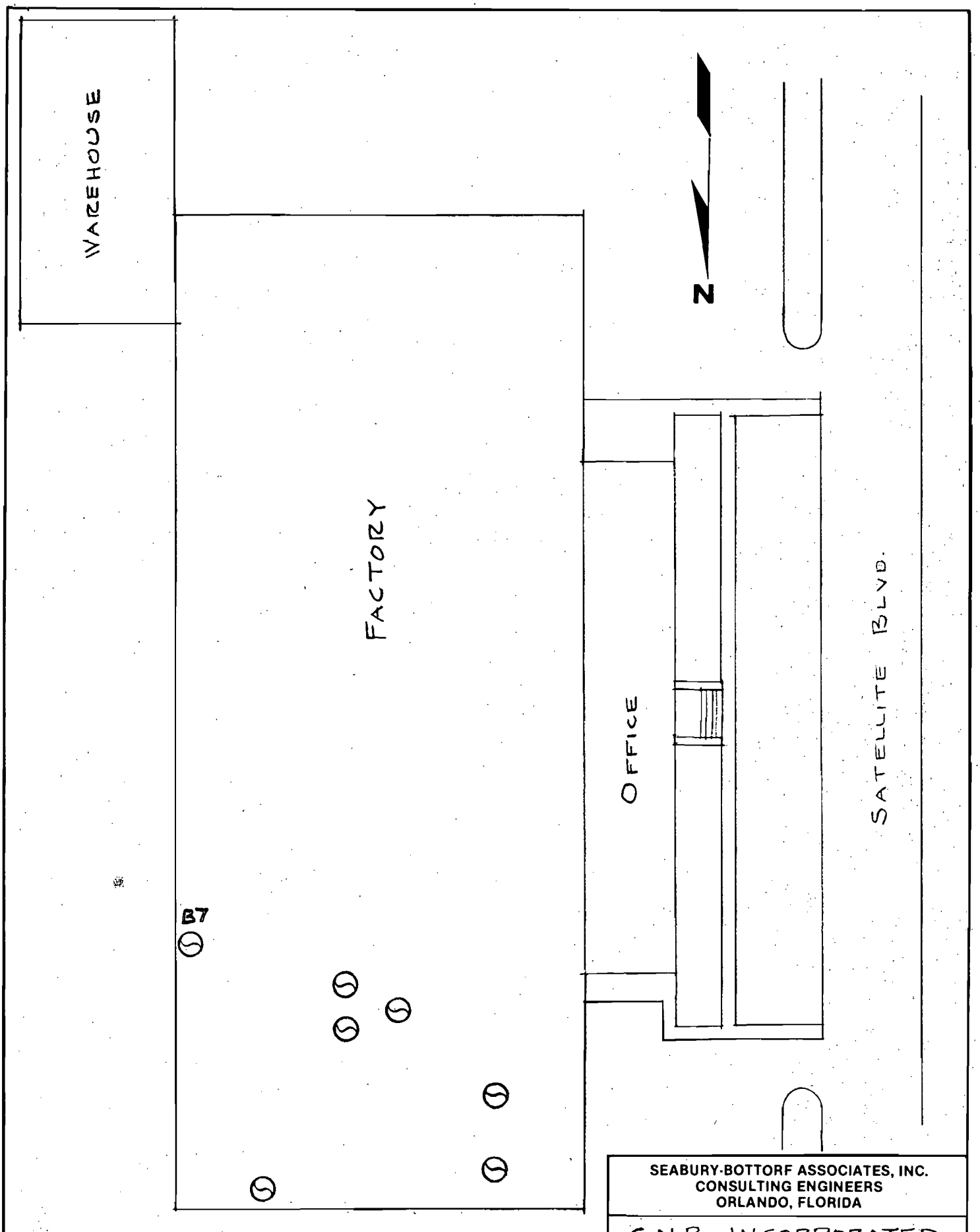
E. Emission Data Used in Modeling

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.

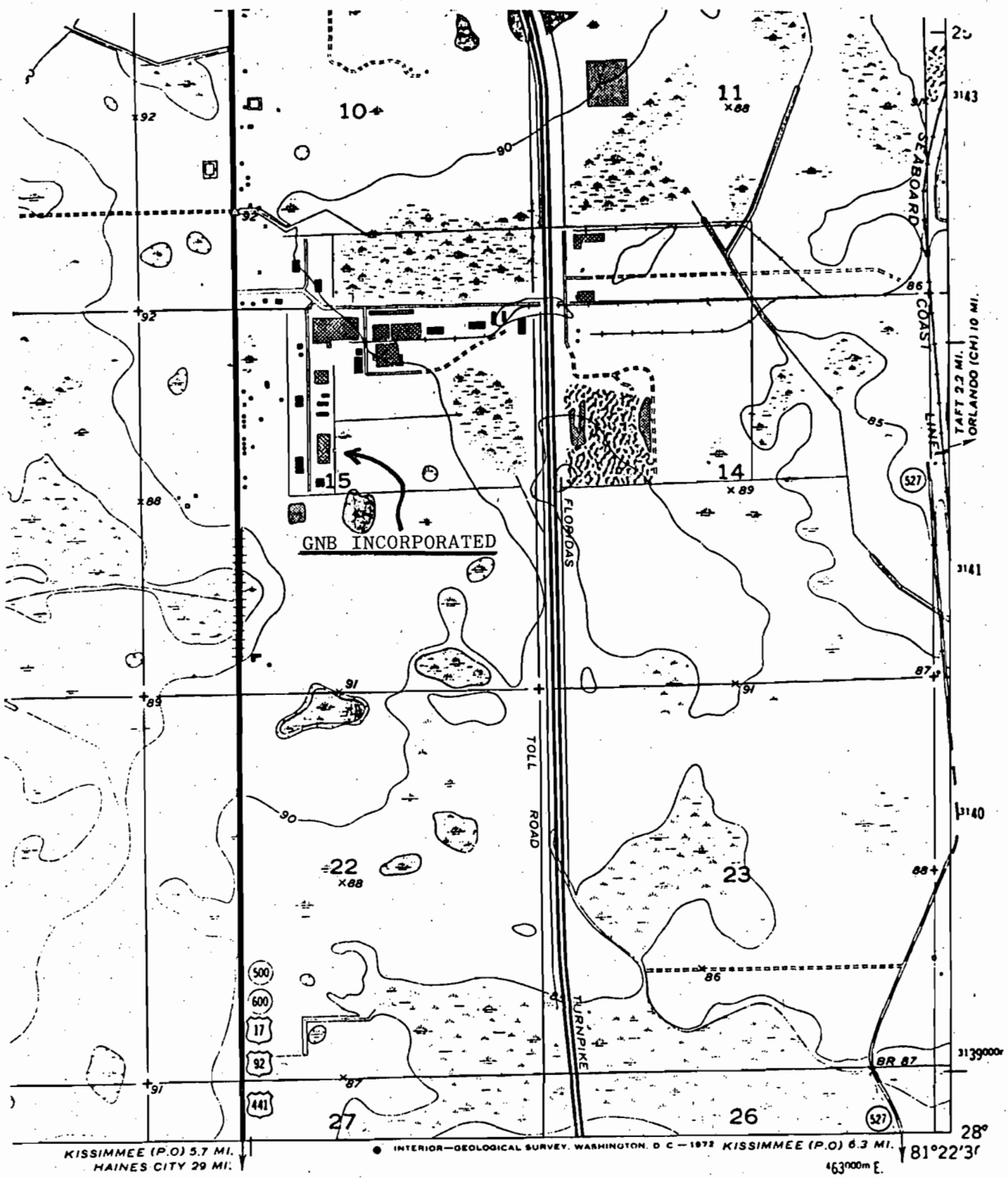


SITE PLAN
N.T.S.

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB INCORPORATED
ORLANDO FLORIDA

DES. ~	DWN. J.B.	115-7-1
SCALE ~	DATE 7/85	DRAWING NO.



PLOT PLAN

SEABURY-BOTTORF ASSOCIATES, INC. CONSULTING ENGINEERS ORLANDO, FLORIDA		
GNB INCORPORATED ORLANDO FLORIDA		
DES. ~	DWN. ~	115-7-2
SCALE NONE	DATE 7/85	DRAWING NO.

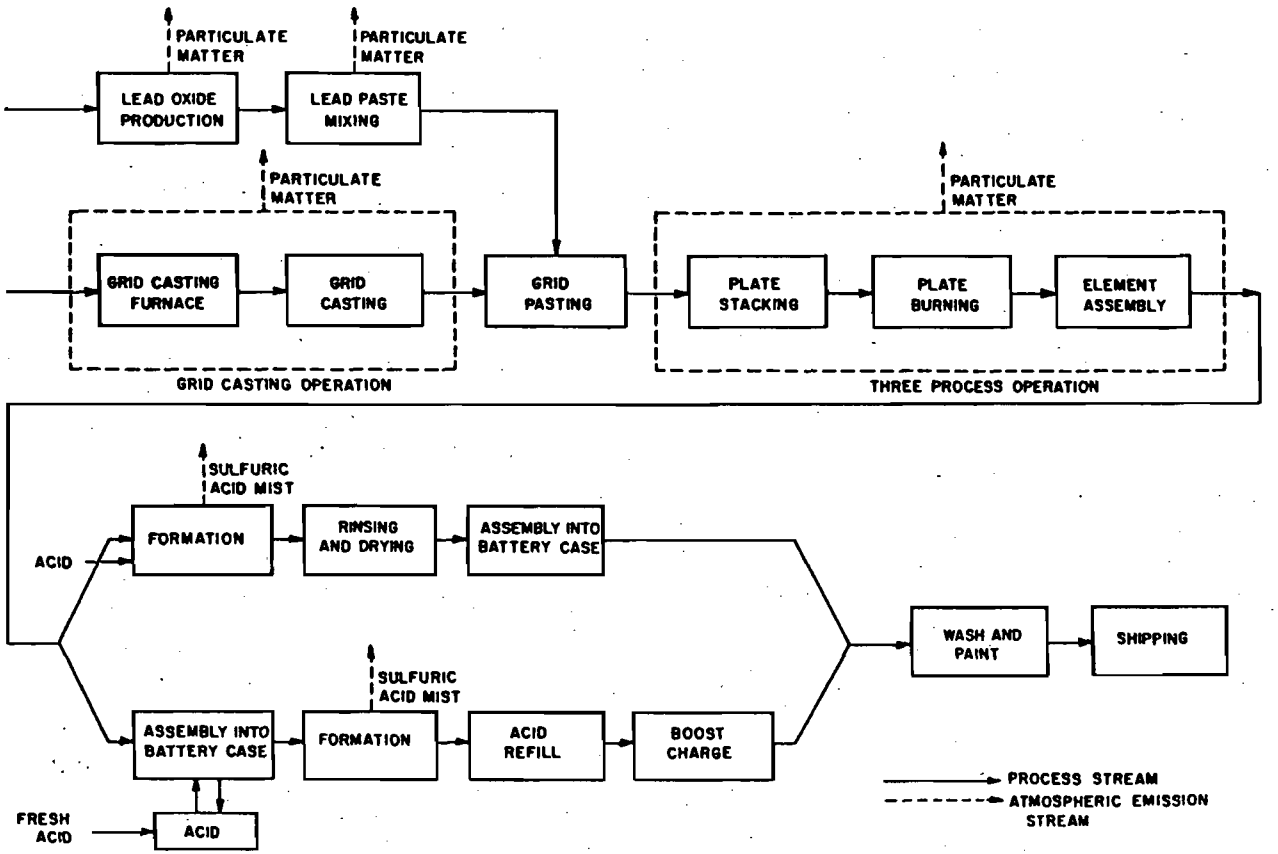
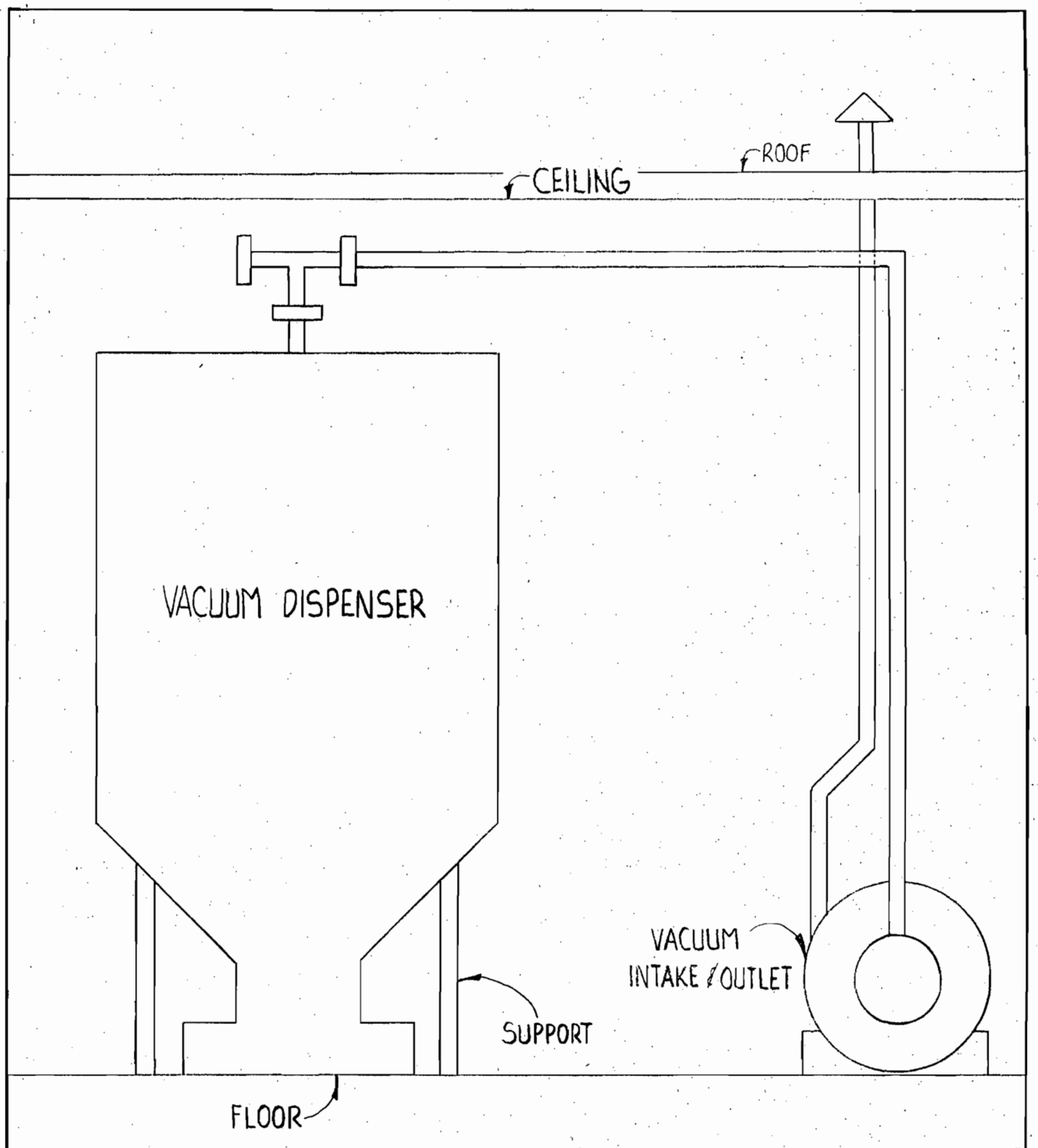


Figure 7.15-1. Process flow diagram for storage battery production.



EAST ELEVATION

CENTRAL VACUUM SYSTEM

SEABURY-BOTTORF ASSOCIATES, INC.
CONSULTING ENGINEERS
ORLANDO, FLORIDA

GNB - INCORPORATED
ORLANDO-FL.

DES. Kleinz	DWN. Kleinz	115-7-6
SCALE NONE	DATE 8-27-85	DRAWING NO.

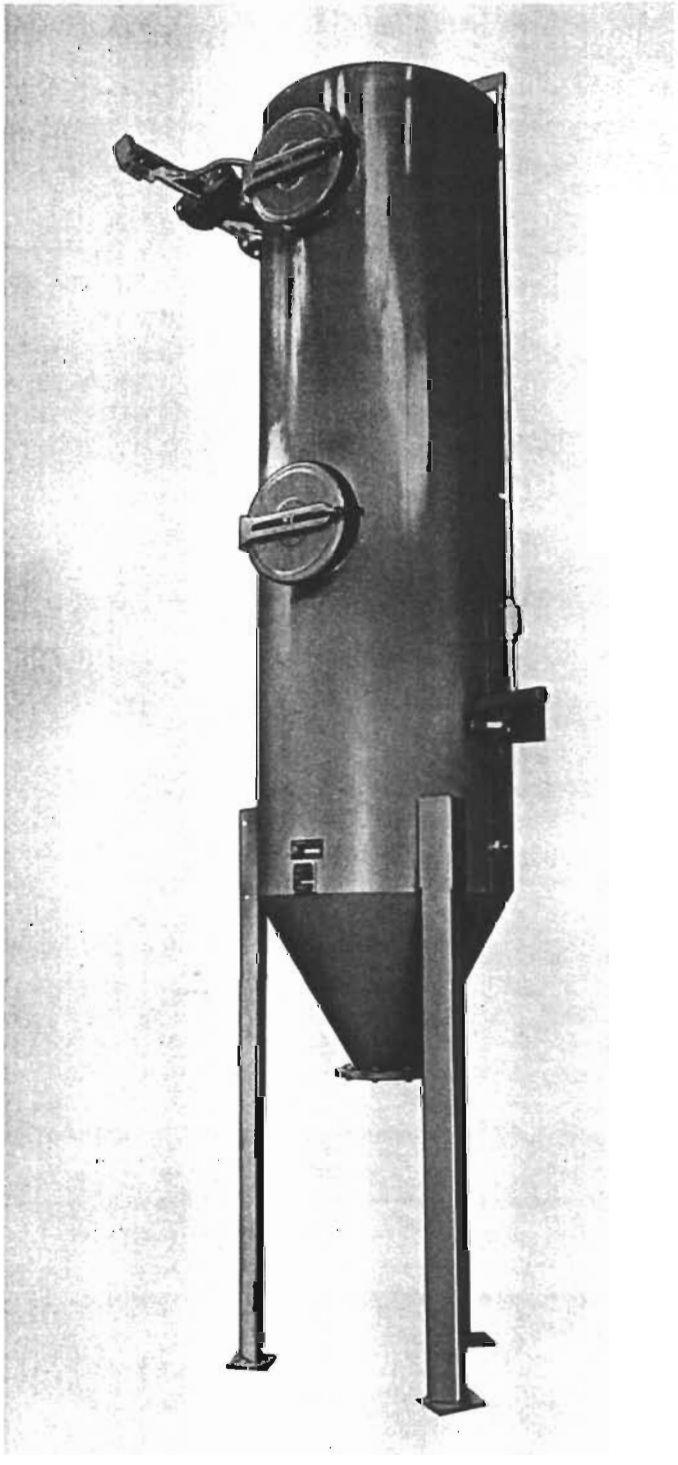
Hoffman Vacumatic Dust Separator

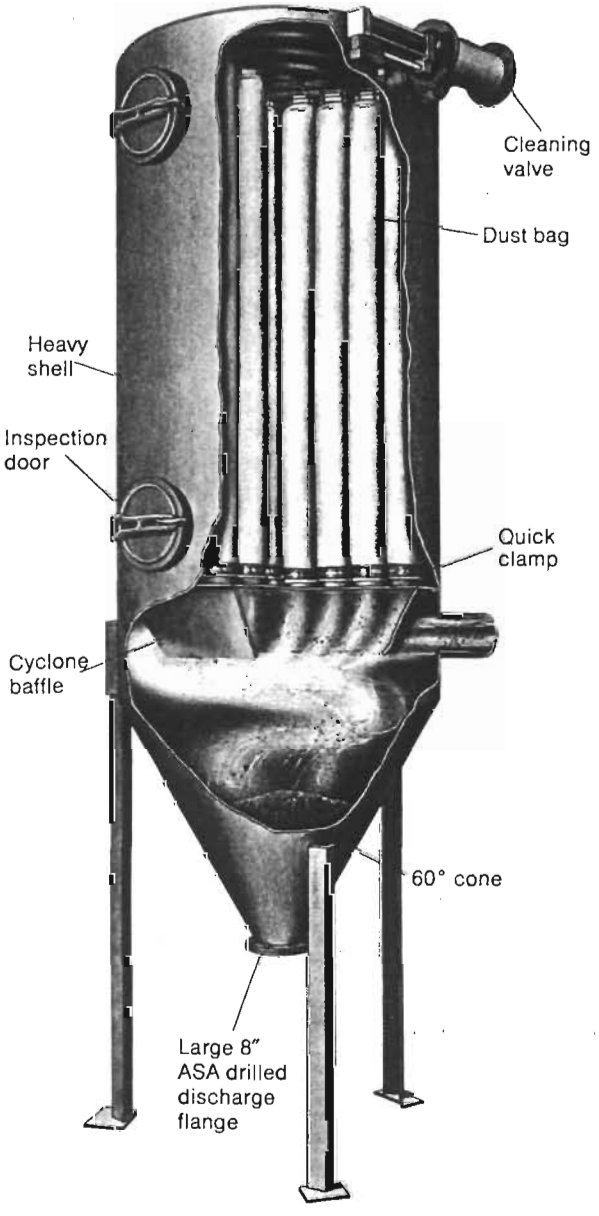
for continuous dust filtration around the clock.

Continuous dust collection and control for most air cleaning applications.

The Hoffman Vacumatic Dust Separator is designed to provide continuous, round-the-clock dust filtration. The secret of this uninterrupted operation is a unique automatic bag-shaking feature which eliminates any need to shut down the system in order to shake bags. This mechanism keeps maintenance to a minimum, and the absence of internal working parts that might jam or clog reduces it still further. We've even designed the Vacumatic with fast-change bags.

But the virtues of the Vacumatic are by no means limited to its nonstop operation. The system also gives you more filter area per square foot of floor space than

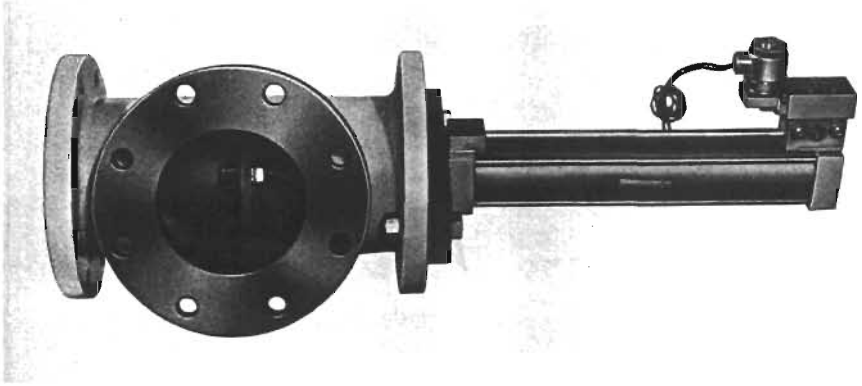




you can expect with other systems. Plus uninterrupted material movement. And because the bags collect dust inside, everything stays cleaner and the bags last longer. The Vacumatic handles explosive materials safely, too. (There are no pinch points.) And getting the Vacumatic set up is no problem, because there's nothing to assemble; it's a complete, "packaged" system.

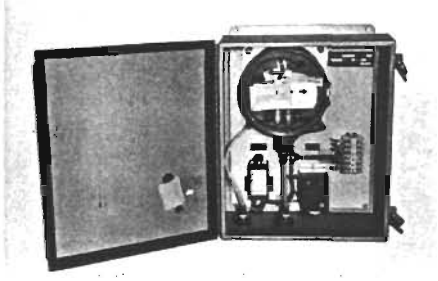
If an round-the-clock dust separator is what you're looking for, you'd better look into the Vacumatic. Your Hoffman representative will be glad to help you determine exactly how to utilize the Vacumatic in your particular application.

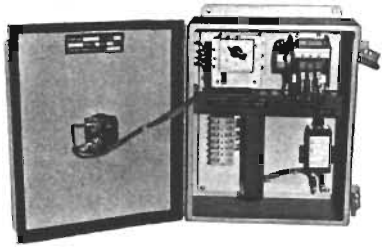
Fail/safe valve permits economical operation.



Dampness never gets to the dustbags. Valve design utilizes stored inertial energy to momentarily interrupt air flow into the exhauster, prevents wet plant air systems from soaking the dustbags. High pressure air consumption is minimal—1 CFM required during intermittent operation. Shake normally at 30 to 120 minute intervals. Valve remains in operating position in case of power failure or bag break. Dust cannot damage external solenoid valve, or affect collector. Simple to install, easy to maintain. Pre-packaged cylinder and solenoid are ready for use. No wiring or plumbing. Modular design, non-lubricated valve invites uncomplicated inspection and minimal servicing.

Two types of timing controls.



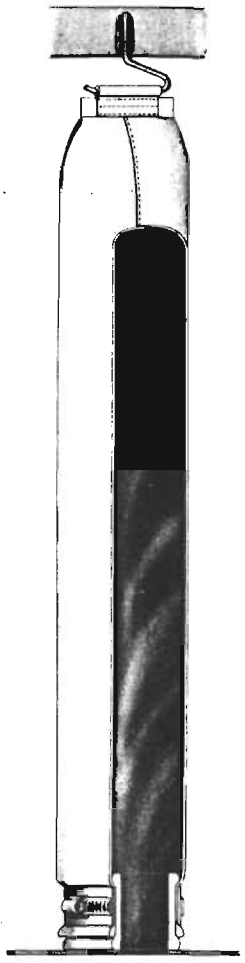


Differential Pressure Switch. Senses uniform accumulation of fine granular dust particles, triggers brief shaking operation at maximum build-up of collected material. Shake operation employed only when required.

Automatic Timer Control. Adjustable for periods ranging from five minutes to four hours cycle time. Anticipates collection of fibrous materials to avoid matting within bag. Recommended for fiberglass, plastics, wire and other fibrous content applications.

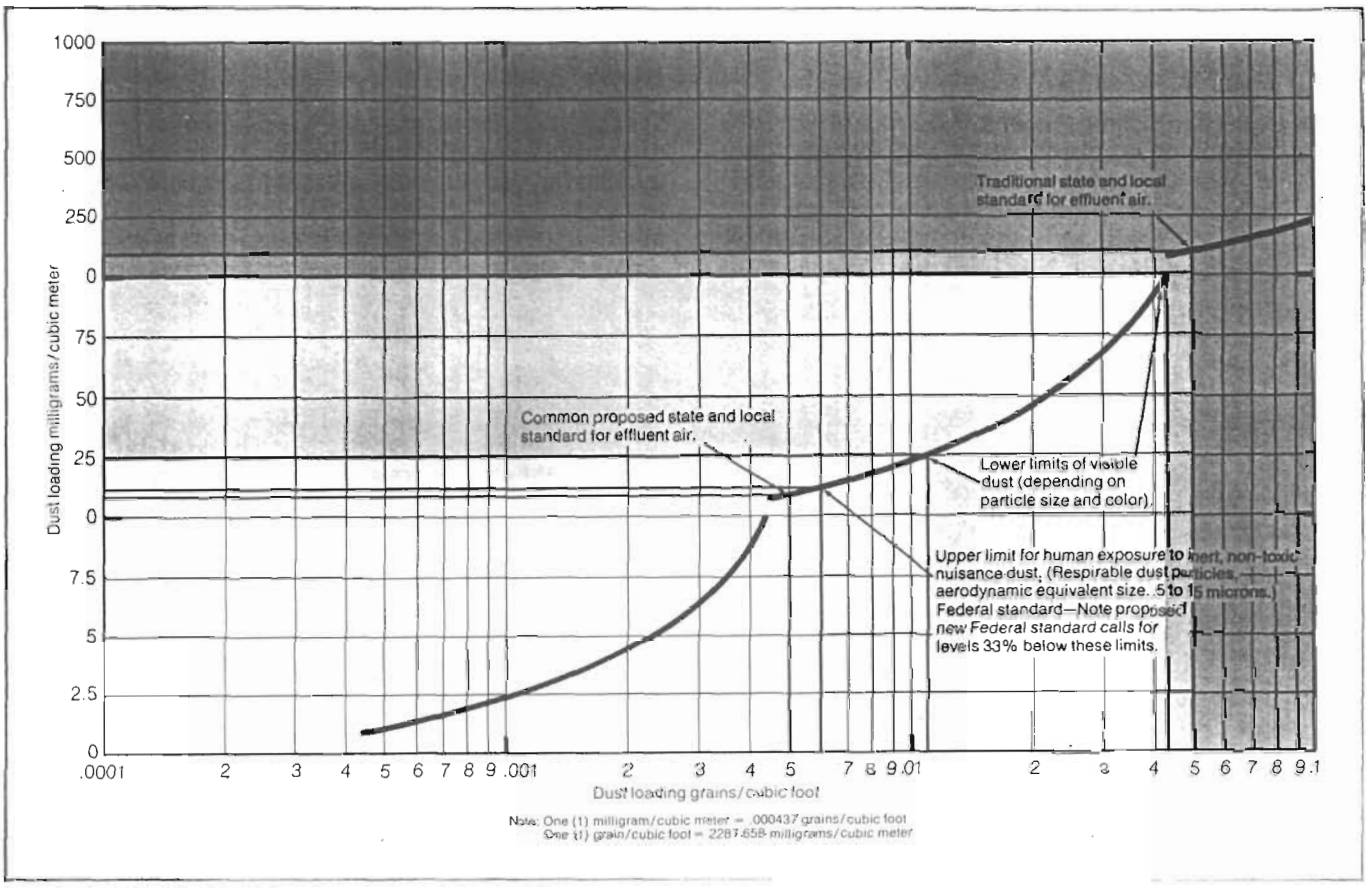
Both control systems are built to JIC standards and mounted in NEMA 12 boxes. Heavy-duty industrial relays rated at one million cycles-plus service are used throughout as standard equipment. Adapts easily for NEMA 3 outdoor service.

Bag



The Vacumatic bag collects dust on the inside. There isn't any bag cage to create friction and wear and you get uninterrupted maximum surface area. Vacumatic bags are heavy reinforced felt and need no extra support. Flip type bag clamps allow rapid change when required. Standard bags supplied in heavy duty 18 oz. double high gloss polypropylene felt or 16 oz. polyester felt. Other bag materials available on request. The entire bag comes completely assembled in the separator.

Air pollution standards and data.



Basic filter data

Size:	301	302	361	362	481	482	601	602	751
Filter Area—Sq. Ft.	86	128	174	221	338	431	651	512	1106
Diameter—Inches	30	30	36	36	48	48	60	60	75
Straight Shell—Inches	66	96	96	120	96	120	120	96	120
No. of Filter Bags	14	14	19	19	37	37	56	56	93
Storage—Cu. Ft.	4.2	4.2	10.2	10.2	27.0	27.0	38.0	38.0	61.0
Std. Inlet Tube	3"	3"	4"	4"	6"	6"	8"	8"	8"
Shipping Weight—Lbs.	800	1000	1250	1400	2000	2100	2800	2700	3900

Uses:

Abrasives
Alumina
Asbestos
Borax
Carbon black
Cellulose acetate
Cement
Ceramic dust
Cereals
Chemicals
Clay
Coal
Cocoa
Coke
Detergents
Diamond dust
Diatomaceous earth
Feed
Fiberglass
Flour
Fly ash
Frit
Graphite
Gypsum
Lime
Limestone
Metal oxides
Metal powders
Mica
Perlite
Pigment
Plastic resins
Rock dust
Rubber
Salt
Sand
Silica flour
Soya products
Starch
Sugar
Sulphur
Talc
Tobacco
Wood flour

HOFFMAN
AIR & FILTRATION SYSTEMS
A Division of Clarkson Industries, Inc.
6035 Corporate Drive, East Syracuse, N.Y. 13057
315/437-0311 Telex 937492

OFFICES/PLANTS United States, Canada, England, Germany, France, Brazil, Japan, Switzerland, Italy, Mexico

ASV-127A-SM-5/78-SL
Printed in U.S.A.

B-7

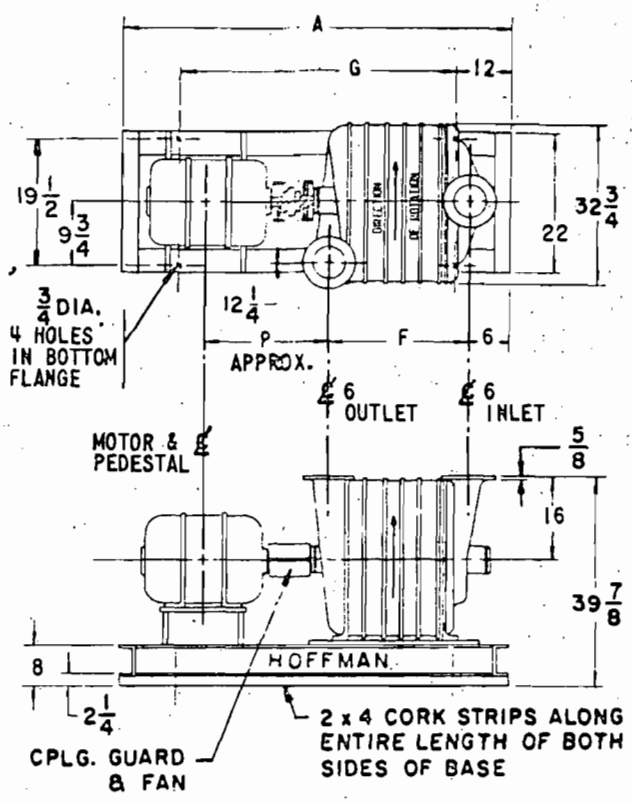
GENERAL DIMENSIONS IN INCHES

4205A - 4208A UNITS

UNIT SIZE	MOTOR FRAME	BASE	PEDESTAL	A	F	G	P
4205A	215T	383076	42111	72	23	48	19 3/16
	254T	383076	42112	72	23	48	21 3/16
	256T	383076	42112	72	23	48	22 1/16
	284TS	383076	42113	72	23	48	21 9/16
	286TS	383076	42113	72	23	48	22 5/16
	324TS	383076	42114	72	23	48	23 1/16
	326TS	383076	42114	72	23	48	23 13/16
	364TS	383076	42115	72	23	48	24 1/16
4206A	215T	383076	42111	72	26 7/16	48	19 3/16
	254T	383076	42112	72	26 7/16	48	21 3/16
							1/16
							9/16
							5/16
							1/16
							13/16
							1/16
	365TS	383077	42115	84	26 7/16	60	24 9/16
4207A	254T	383076	42112	72	29 7/8	48	21 3/16
	256T	383076	42112	72	29 7/8	48	22 1/16
	284TS	383076	42113	72	29 7/8	48	21 9/16
	286TS	383076	42113	72	29 7/8	48	22 5/16
	324TS	383076	42114	72	29 7/8	48	23 1/16
	326TS	383077	42114	84	29 7/8	60	23 13/16
	364TS	383077	42115	84	29 7/8	60	24 1/16
	365TS	383077	42115	84	29 7/8	60	24 9/16
	404TS	383077	42116	84	29 7/8	60	25 13/16
	405TS	383077	42116	84	29 7/8	60	26 9/16
4208A	254T	383076	42112	72	33 5/16	48	21 3/16
	256T	383077	42112	84	33 5/16	60	22 1/16
	~~284TS~~	~~383077~~	~~42113~~	~~84~~	~~33 5/16~~	~~60~~	~~21 9/16~~
	286TS	383077	42113	84	33 5/16	60	22 5/16
	~~324TS~~	~~383077~~	~~42114~~	~~84~~	~~33 5/16~~	~~60~~	~~23 1/16~~
	326TS	383077	42114	84	33 5/16	60	23 13/16
	364TS	383077	42115	84	33 5/16	60	24 1/16
	365TS	383077	42115	84	33 5/16	60	24 9/16
	404TS	383077	42116	84	33 5/16	60	25 13/16
	405TS	383077	42116	84	33 5/16	60	26 9/16

CERTIFIED FOR Gould Inc.
Orlando, Florida

YOUR ORDER 76920
OUR ORDER GS-26346
BY Jerry Hoppe
HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES INC.



NOTES:

1. UNIT SHAFT SIZE 1 3/8 DIA. 3/8 X 3/16 KWY.
2. UNIT CONNECTIONS: (INLET & OUTLET) 6 I.D., 11 O.D., 3/4-10 TAP 8 HOLES ON 9 1/2 B.C. STRADDLING ℄'S.
3. P DIMEN. BASED ON COUPLING WITH 1/8 GAP.
4. PEDESTAL IS WELDED TO BASE.

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC., NEW YORK, N.Y.

DR.	DATE	DRAWING NUMBER
J.J.H.	1-10-68	AX-1335

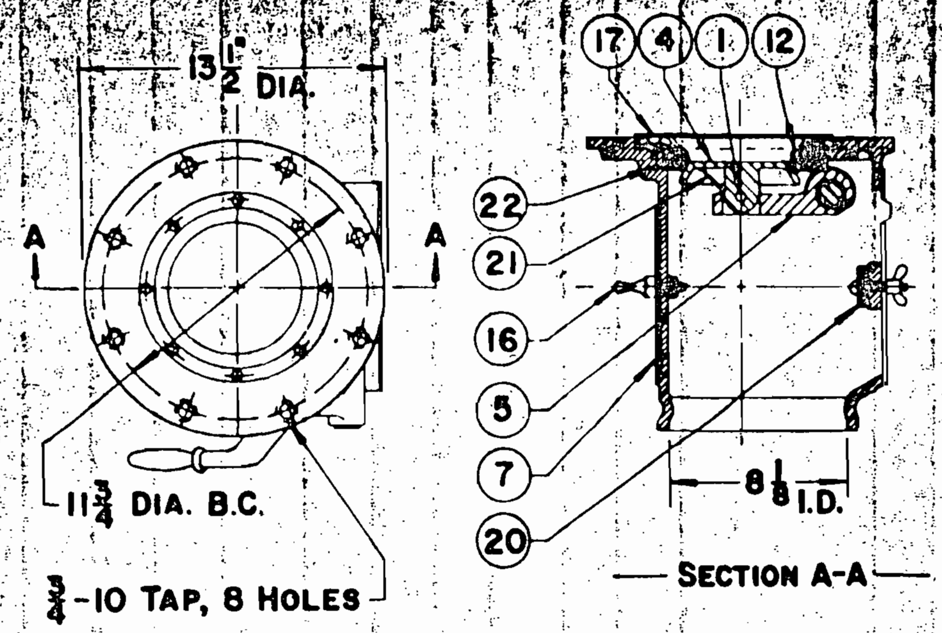
Best Available Copy

REF. DWGS.
B/M 39872
SS 40 XH 35

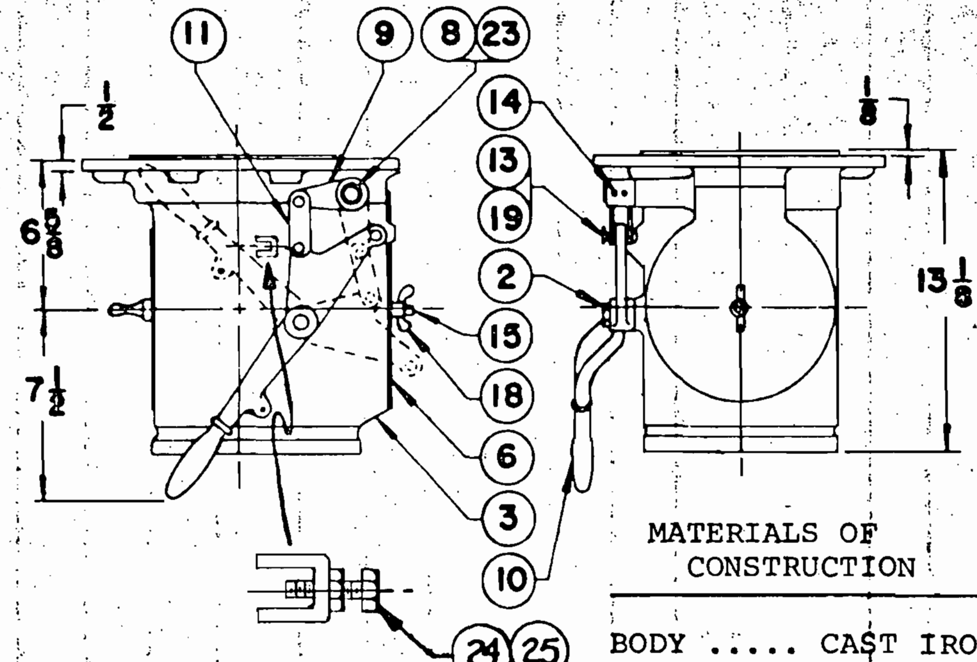
CERTIFIED FOR Gould Inc.
Orlando, Florida

YOUR ORDER 76920
OUR ORDER GS-26346
BY Jerry Hoppe

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES INC.



NOTE:
HINGE VALVE TO BE BOLTED TO
THE DISCHARGE FLANGE OF THE SEPARATOR.



MATERIALS OF CONSTRUCTION

BODY ..... CAST IRON
SEAT ..... RUBBER
SHAFT .... STEEL

BILL OF MATERIAL

ITEM	PART NO.	DESCRIPTION	REQ.
1	3137	PIN, HINGE	1
2	4085	BOLT, SHOULDER	1
3	38867	BODY	1
4	38868	DISC	1
5	38869	ARM, CONNECTING	1
6	38870	COVER, HAND HOLE	1
7	38871	COVER, HAND HOLE	1
8	38872	SHAFT	1
9	38873	ARM, LOCKING DEVICE	1
10	38874	HANDLE	1
11	38875	LINK, CONNECTING	2
12	38877	RETAINER, GASKET	1
13	101406	PIN, CLEVIS	2
14	02096	PIN, TAPER, #4X1 1/2	4
15	02388	SCREW, RD. HD., MACH.	1
16	023239	SCREW, THUMB	1
17	02431	SCREW, FL. HD., MACH.	8
18	05046	NUT, WING	1
19	05314	PIN, COTTER	4
20	0569	BUMPER, RUBBER	1
21	061179	SPRING, #16	1
22	062304	GASKET	1
23	070175	NEEDLE, BEARING	2
24	04634	SCREW, HEX HD. CAP.	1
25	04912	NUT, HEX 3/8-16	1

A-AX-701

REVISIONS

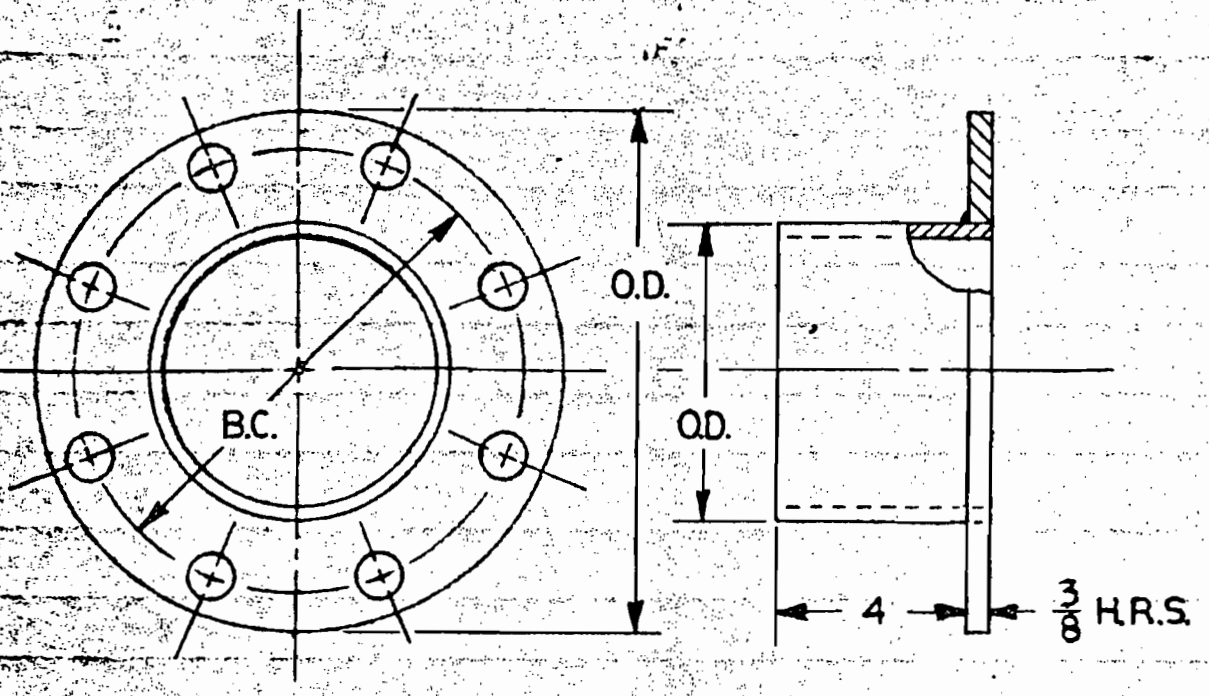
REV.	ECN NO.	DATE	BY
B	68246	10-28-68	HDM
C	71C48	7-21-71	DFT
D	73038	3-23-73	RGS

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC.

8" HINGE VALVE
WITH SINGLE FLANGE

DR. HDM DATE 10-25-68
SCALE NONE
APPR. AAD

SIZE A DRAWING NUMBER AX-701 D



PART NO.	SIZE	UNIT	FLANGE O.D.	TUBING O.D.	B.C.	NO. OF HOLES	DIA. OF HOLES
A 391903	3	41	7½	3	6	4	¾
A 391678	4	40A1	9	4	7½	8	¾
A 391923	5	41A	10	5	8½	8	⅞
A 391693	6	42&383	11	6	9½	8	⅞
A 391900	8	43&384	13½	8	11¾	8	⅞
A 391904	12	385	19	12	17	12	1
A 391961	14	386	21	14	18¾	12	1⅛
A 391962	20	771	27½	20	25	20	1¼

CERTIFIED FOR Gould Inc.
Orlando, Florida

YOUR ORDER 76920
OUR ORDER GS-26346
BY Jerry Hoppe

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES INC.

REV	REVISIONS		
	ECN NO.	DATE	BY
B	6857	2-9-68	F.F.

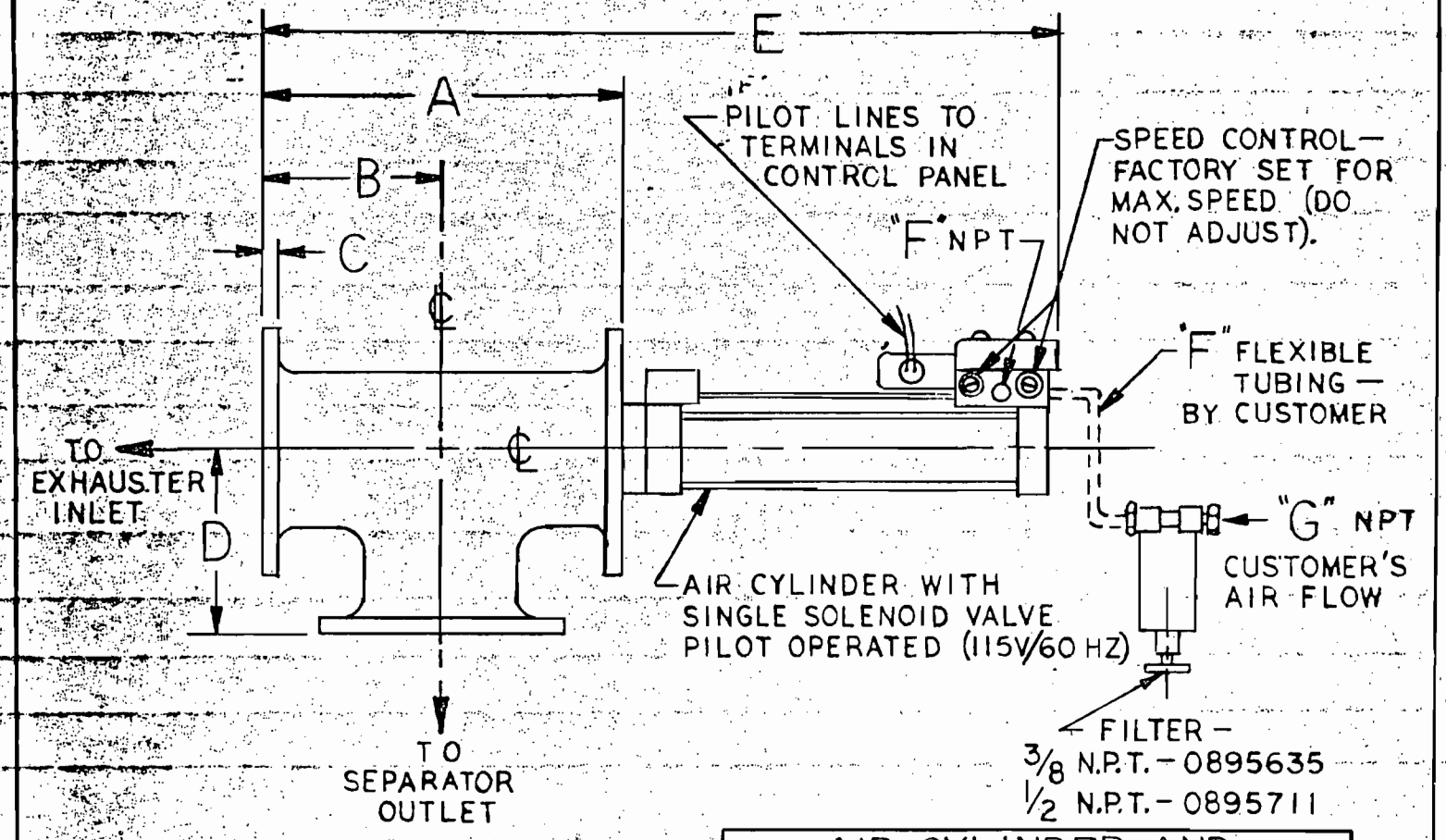
HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC.

FLANGE-ADAPTER (TUBING)

F.F | DATE 2-9-68 | DWN AAD
SCALE | CHK'D | REQD
MAT'L

SIZE	DRAWING NUMBER	REV.
A	AAD-700	B

AAD-6031



GENERAL DIMENSIONS

SIZE	PART NO.	A	B	C	D	E	F	G
6	0895633	16	8	1	8	35	3/8	3/8
~~8~~	~~0895634~~	~~18~~	~~9~~	~~1 1/16~~	~~9~~	~~37~~	~~3/8~~	~~3/8~~
~~12~~	~~0895707~~	~~24~~	~~12~~	~~1 1/4~~	~~12~~	~~48~~	~~1/2~~	~~1/2~~

(B) AIR CYLINDER AND SOLENOID VALVE ASSEMBLY

NEMA I, II & III GEN'L. ● PART NO.	CL. I & II GRP. D, F-G. X-PRF. □ PART NO.	J.I.C. APP'D. □ PART NO.
0855025	~~0855023~~	~~0855031~~
~~0855025~~	~~0855023~~	~~0855031~~
~~0855030~~	~~0855036~~	

CERTIFIED FOR Gould Inc. Orlando, Florida
YOUR ORDER 76920
OUR ORDER GS-26346
BY Jerry Hoppe
HOFFMAN AIR & FILTRATION DIV. CLARKSON INDUSTRIES INC.

GENERAL NOTES:

1. AIR CYLINDER LINE PRESSURE NOT TO EXCEED 150 P.S.I. NORMAL MIN. OPERATING PRESSURE APPROX. 80 P.S.I.
2. ALL FLANGES CONFORM TO A.S.A. 125# DRILLING.
3. FOR CONTROL PANEL SEE DRAWING WD-298

REV	REVISIONS EDN. NO.	DATE	BY
A	73083	7-3-73	WLH
B	73167	9-24-73	OM

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC.

VACU-MATIC® BAG CLEANER

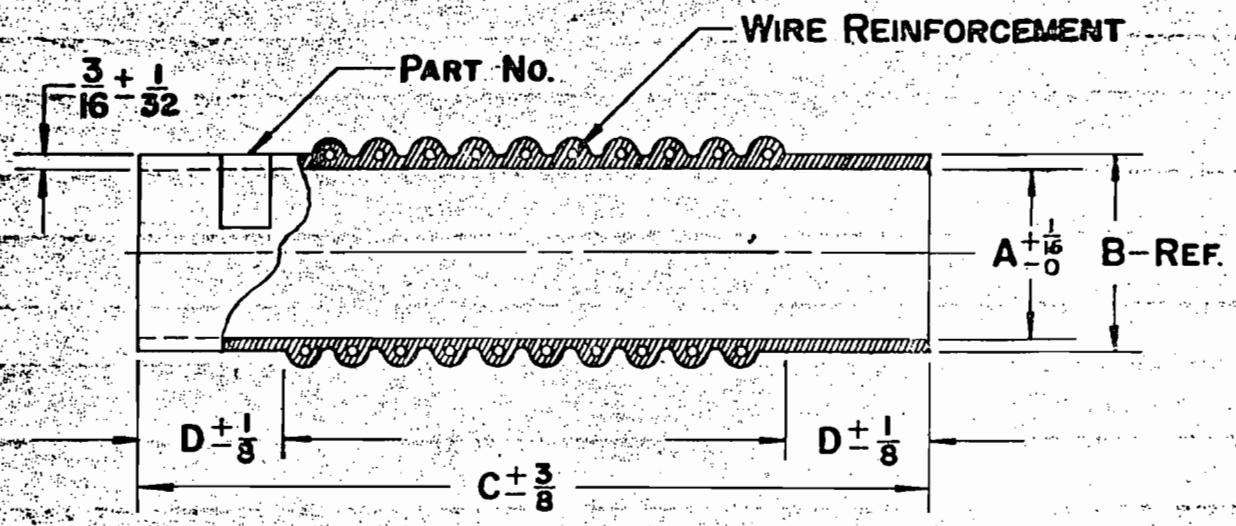
DR WLH | 6-1-73 | A.S.
SCALE | CHKD | REQD
MATL

SIZE A | DRAWING NUMBER AAD-6031 | REV. B

CERTIFIED FOR Gould Inc.
Orlando, Florida

YOUR ORDER 76920 &
OUR ORDER GS-26346
BY Jerry Hoppe
HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES INC.

A-AAD-785



TUBE O.D.	DIMENSIONS				PART(A) NUMBER
	A	B	C	D	
~~5~~	~~5~~	~~5-3/8~~	~~10~~	~~3~~	~~0895607~~
6	6	6-3/8	10	3	0895608
~~8~~	~~8~~	~~8-3/8~~	~~10~~	~~3~~	~~0895609~~
10	10	10-3/8	10	3	0895610
12	12	12-3/8	12	4	0895611
14	14	14-3/8	12	4	0895612
16	16	16-3/8	12	4	0895613
18	18	18-3/8	14	5	0895614
20	20	20-3/8	14	5	0895615

1. TEMP. - 300°F., MAX.
2. PRESS.- 15 P.S.I.G. MAX.
3. VAC. - 15" MERCURY, MAX.
4. THE ABOVE SPECS. ARE FOR CONTINUOUS DUTY
5. STAINLESS STEEL CLAMPS FURNISHED FOR EACH RUBBER SLEEVE BUT NOT SHOWN.

REV	REVISIONS		
	EDN. NO	DATE	BY
-	68244	10-22-68	HDM
A	68252	10-29-68	HDM

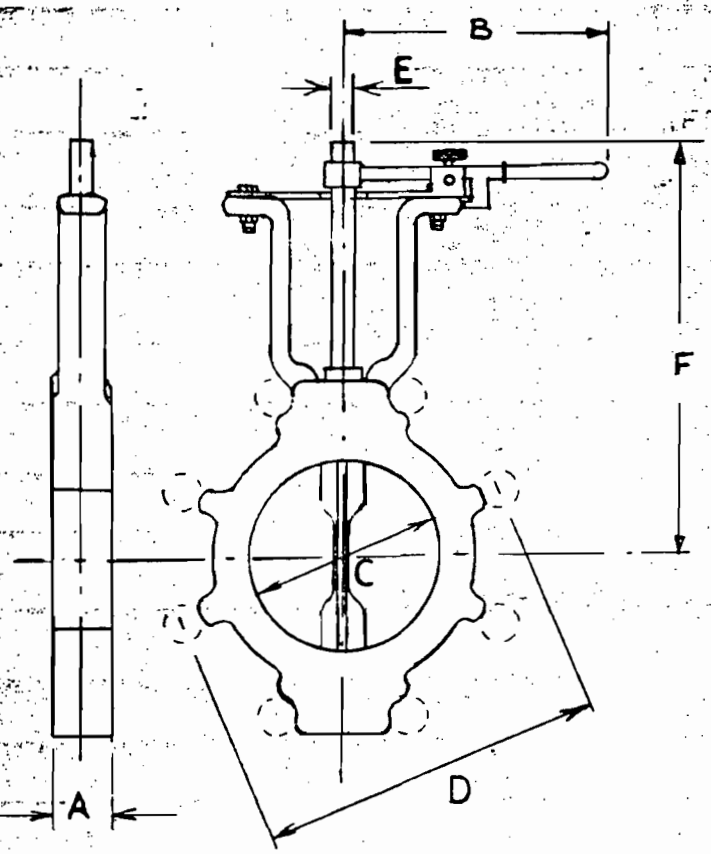
HOFFMAN AIR & FILTRATION Div.
CLARKSON INDUSTRIES, INC.

RUBBER SLEEVES FOR STD. TUBE SIZES 5" THRU 20"

DR	DATE	APP
HDM	8-26-68	AAD

SIZE A | DRAWING NUMBER AAD-785 | REV A

AAD-832



CERTIFIED FOR Gould Inc.
Orlando, Florida

YOUR ORDER 76920
OUR ORDER GS-26346
BY Jerry Hoppe
HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES INC.

METAL SEATED WAFER VALVE FOR MOUNTING BETWEEN USAS 125/150# FLANGES.

STANDARD VALVE HAS DUCTILE IRON BODY AND BLADE, TYPE 304 STAINLESS STEEL STUB SHAFTS AND TAPER PIN, CAST IRON BEARINGS, BRONZE PACKING NUT, AND TFE-ASBESTOS PACKING.

PART NO.	SIZE	A	B	C	D	E	F	WT.LBS.
0155162	3	1.06	7	3.0	6.0	0.38	7.9	6
0155163	4	1.25	7	4.0	7.5	0.50	8.7	8
~~0155164~~	~~5~~	~~1.31~~	~~7~~	~~5.0~~	~~8.5~~	~~0.56~~	~~9.2~~	~~11~~
0155165	6	1.31	7	6.0	9.5	0.56	9.7	15
~~0155166~~	~~8~~	~~1.31~~	~~10~~	~~8.0~~	~~11.8~~	~~0.56~~	~~10.9~~	~~19~~
0155167	10	1.31	10	10.0	14.2	0.56	12.2	30
0155168	12	1.38	10	12.0	17.0	0.75	13.7	42
0155169	14	1.50	10	13.2	18.8	0.75	14.7	55
0155170	16	1.62	10	15.2	21.2	0.75	15.9	68

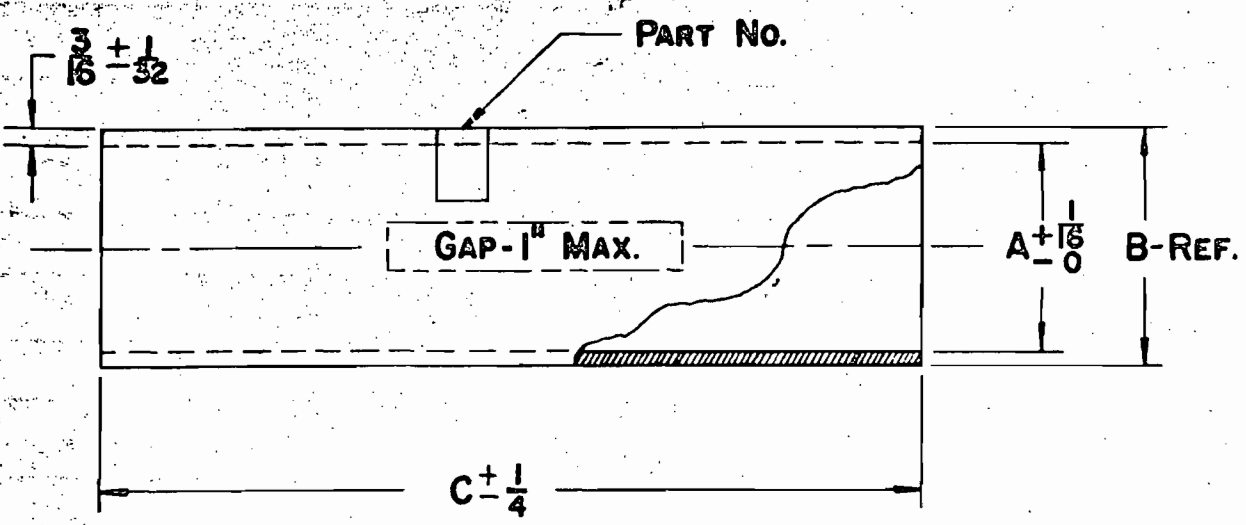
REV	REVISIONS		
	E.D.N. NO	DATE	BY
X	71004	1-12-71	TK

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC.

STANDARD WAFER BUTTERFLY VALVES

DR T.KING | DATE 1-12-71 | DIV AIR SYS
SCALE | CHKD | REQD
MATL
SIZE A | DRAWING NUMBER AAD-832 | REV

ESD 67009



TUBE O.D.	DIMENSIONS			PART (A) NUMBER
	A	B	C	
2-1/8	2-1/8	2-1/2	4	0895596
2-1/2	2-1/2	2-7/8	4	0895597
3	3	3-3/8	4	0895598
4	4	4-3/8	4	0895599
5	5	5-3/8	4	0895600
6	6	6-3/8	4	0895601
(B) 8	8	8-3/8	4	0895629

1. TEMP.: 225° MAX.
2. PRESS.: 10 P.S.I.G. MAX.
3. VAC.; 10" MERCURY MAX.
4. THE ABOVE SPECIFICATIONS ARE FOR CONTINUOUS DUTY
5. STAINLESS STEEL CLAMPS FURNISHED FOR EACH RUBBER SLEEVE BUT NOT SHOWN.

CERTIFIED FOR Gould Inc. Orlando, Florida
YOUR ORDER 76920 OUR ORDER GS-26346
BY Jerry Hoppe
HOFFMAN AIR & FILTRATION DIV. CLARKSON INDUSTRIES INC.

REVISIONS			
REV	EON NO	DATE	BY
-	68214	10-22-68	HDM
A	68252	10-29-68	HDM
B	69116	7-10-69	JMS

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC.

RUBBER SLEEVES FOR STD. TUBE SIZES 2-1/8" THRU 8"

DR	DATE	CHK'D
HDM	8-26-68	AAD

SCALE | MATL | SIZE A | DRAWING NUMBER AAD-784 | REV B

B7

File 115-4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

RECEIVED
ORLANDO

REF: 4APT-AM

FEB 20 1985

FEB 26 1985
RECEIVED
FEB 27 1985
SEABURY BOTTORF ASSOCIATES INC.

Mr. Steve Smallwood, Chief
Bureau of Air Quality Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Smallwood:

Enclosed are the source-specific emission limit regulations for the six lead sources identified in the Florida State Implementation Plan for lead. EPA will be taking these regulations to a public hearing in Tampa, Florida on March 28, 1985, at 10:00 A.M., in the Hillsborough County Office at 1900 9th Avenue. The public hearing is being held to provide for public comment on EPA's proposed promulgation of the Florida lead SIP emission limits.

By copy of this letter, we are also sending the regulations to the six affected sources, the Hillsborough County local agency in Tampa, the Duval County local agency in Jacksonville, and the district office in Orlando.

If you have any questions, please feel free to call Ms. Kelly McCarty, at (404)881-3016.

Sincerely yours,

James T. Wilburn, Chief
Air Management Branch
Air, Pesticides, and Toxics
Management Division

Enclosure

cc: William L. Scott, Johnson Controls, Inc.
James Meverden, Johnson Controls, Inc.
T.W. Freudiger, Refined Metals Corporation
J.N. Robson, GNB Batteries, Inc.
Grady E. Curl, Chloride Inc.
Joyce Morales, Gulf Coast Lead
Khurshid Mehta, Bio-Environmental Services Division
Roger Caldwell, Orlando District Office
Jerry Campbell, Hillsborough County Environmental
Protection Commission

It is proposed to amend Part 52 of Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart K — Florida

Section 52.535 is added as follows:

§ 52.535 Rules and regulations

(a) The regulatory portion of the lead implementation plan submitted on September 17, 1984, is disapproved because the laws or regulations needed to implement specific measures necessary to assure attainment and maintenance of the NAAQS for lead were not included.

(b) The following requirements shall apply to all the facilities listed in paragraph (c) of this section:

The facilities listed in paragraph (c) shall conduct an initial test on all sources of lead emissions specified for each facility within 120 days of promulgation of this regulation. Such test shall demonstrate compliance with the specified emission limit for each source. Source test methods and analytical procedures used shall be in accordance with provisions of Part 60, Appendix A, Method 12. For source testing, a plan shall be submitted to the Region IV Administrator of EPA and the Florida Department of Environmental Regulation (FDER) at least sixty (60) days prior to the

initial test, to allow review and approval of the plan. This plan should include, at a minimum, a description of the test equipment and procedures to be used and the sampling locations, with appropriate dimensions, showing upstream and downstream gas flow disturbances. Notice must be given to the Region IV Administrator and the FDER Bureau Chief, at least thirty (30) days prior to conducting the initial test, to afford them the opportunity to have observers present. Results of all source testing and compliance determinations shall be submitted to the Region IV Administrator and the FDER Bureau Chief within thirty (30) days after completion of the test. After completion of the initial performance test required above, the facilities shall conduct annual stack tests for all sources with a specified emission limit.

Compliance with emission limits for non-process fugitive emissions, i.e., road dust, stock piles, plant grounds, etc., shall be determined by site inspections and review of records and logs of fugitive dust suppression activity, which may include chemical stabilization, water spraying with appropriate runoff collection, resurfacing, sweeping, revegetation, etc.

Upon submittal and approval by EPA, the Agency will accept an alternative method to demonstrate compliance with the specified emission limit. A submittal for an alternative compliance method must provide an exclusive means (i.e., mathematical relationship with established parameter(s)) to determine compliance with the applicable emission limit. Until an alternative compliance method request is approved by EPA, the initial and

annual emission test requirements will remain in effect.

The owner(s) or operator(s) shall maintain continuous records of plant process and emission control operations as necessary to determine continuous compliance. Such records shall include reports of all process operations and control equipment operating parameters. Such records shall also include reports of all types of process upsets and emission control equipment malfunction, detailing the nature and duration of the upset or malfunction, the expected effects on emissions, and the corrective actions taken or planned to avoid recurrences. Such records shall be available at the plant site for inspections by the Region IV Administrator of EPA and the Bureau Chief of the FDER for a period of at least two (2) years.

(c) The following requirements are promulgated as applicable to the indicated stationary sources of lead:

(1) Gulf Coast Lead, 1901 North 66th Street, Tampa, FL.

Secondary Lead Smelter Operation.

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rate lb/hr
Blast & Slag Furnaces	1.810
Blast & Slag Furnaces Slag & Product Tapping	0.060
Blast Furnace Charging	0.220
50-ton Melt Kettles (3 total)	0.400
20-ton Keel Cast Kettle	0.080
TOTAL	2.570

(ii) Visible emissions from the closed charge doors on the blast furnace and the refining kettle shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on the blast furnace shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from all other sources shall not exceed 5 percent opacity.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vi) No more than one blast furnace shall operate at a time.

(vii) No more than two 50-ton melt kettles shall be operated at a time.

(viii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(2) Johnson Controls, Globe Battery Division, 10215 North 30th Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
OSI Drying Oven - A	0.008
OSI Drying Oven - B	0.008
Hofman VAC System	0.030
Remelt Rotoclone	0.020
Paste Mixing Rotoclone	0.008
Wirtz Caster #1	0.015
Wirtz Caster #2	0.015
Wirtz Caster #3	0.015
Wirtz Caster #4	0.015
Wirtz Caster #5	0.006
Mark V Cast on Strapline	0.118
Cast on Strapline 1 & 2	0.100
Cast on Strapline #3	0.050
Paste Mixing - dry	0.040
Mill Bearing	0.006
PbO Storage	0.010
TOTAL	0.464

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(3) Chloride Metals, US. 41/Raleigh Street, Tampa, FL

Secondary Lead Smelter Operation

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Blast Furnace #1	0.600
Slag & Product Tapping - Furnace #1	0.100
Blast Furnace #2	0.080
Slag & Product Tapping - Furnace #2	0.050
Remelt Kettles (4 total)	0.200
PbO Plant	0.220
PbO Transfer	0.220
TOTAL	1.470

(ii) Visible emissions from the closed charge doors on Furnaces No. 1 and 2 shall not exceed 5 percent opacity during furnace operation.

(iii) Visible emissions from the charge doors on Furnaces No. 1 and 2 shall not exceed 10 percent opacity during charging operations.

(iv) Visible emissions from the lead oxide plant shall not exceed 5 percent opacity.

(v) Visible emissions from all other sources shall not exceed 5 percent opacity.

(vi) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(4) Chloride Battery, US. 41/Raleigh Street, Tampa, FL.

Lead - Acid Battery Manufacturing Plant

(i) All emission points shall be limited to the following levels:

Source Name	Lead Emission Rates - lb/hr
Ventilation System	0.300
PbO Silo	0.070
Pb Casting & Pasting	0.350
TOTAL	0.720

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operation.

(iii) The PbO silo shall be limited to operating 16 hours per week.

(iv) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(v) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(5) Gould Battery (GNB), 11331 Satellite Boulevard, Orlando, FL.

Lead - Acid Battery Manufacturing Plant.

(i) All emission points shall be limited to the following levels:

Source Name	GNB ID #	Lead Emission Rates - lb/hr
Pasting/Parting	B1	0.1950
Assembly	B2	0.2188
Casting, QC Mixing	B3	0.1808
Assembly	B4	0.2998
Assembly	B5	0.4902
Bulk Oxide	B6	0.0142
Central Vacuum	B7	0.0096
Pot Hood	E1	0.1190
Pot Hood	E2	0.0096
Pot Hood	E3	0.0096
Tray Exhaust	E4	0.1238
Paste Oven POS	E5	0.0048
Paste Oven NEG	E6	0.0048
TOTAL		1.6800

(ii) Visible emissions from all emission points shall not exceed 5 percent opacity during operaiton.

(iii) Source tests shall be performed in accordance with EPA Reference Methods 1 through 5, and 9 (40 CFR 60, Appendix A). In the case of Method 9, Section 2.5 shall be excluded.

(iv) The following sources shall be limited to operating 4000 hours per year:

Pasting/Parting, GNB ID #B1; Assembly, GNB ID #B2;

Assembly, GNB ID #B3; Assembly, GNB ID #B4;

Central Vacuum, GNB ID #B7; Tray Exhaust, GNB ID #E4;

Paste Oven POS, GNB ID #E5; Paste Oven NEG, GNB ID #E6.

(v) The following sources shall be limited to operating 5000 hours per year:
Casting, QC Mixing, GNB ID #B3; Pot Hood, GNB ID #E1; Pot Hood, GNB ID #E2; Pot Hood, GNB ID #E3.

(vi) The Bulk Oxide point source, GNB ID #B6, shall be limited to operating 1000 hours per year.

(vii) All emissions testing shall be performed at the maximum production rate, or other production rate or operating conditions, which would result in the highest lead emissions.

(6) Refined Metals, 2640 Capitola Street, Jacksonville, FL.
Secondary Lead Smelter Operation.

(i) This source is currently shut down, with no plans to reopen. However, should the owners decide to reopen the plant, they must reapply for a permit as if they were a new source, and they will be subject to new source review, as if they had not operated previously. This is to be effective immediately, even though their current permit does not expire until December 31, 1984. This is pursuant to Florida Administrative Code 172.530, Source Reclassifications, and 17-4.09, Renewals.