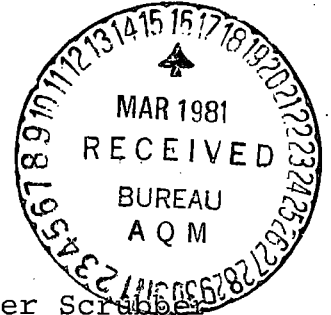


**INTEROFFICE MEMORANDUM**

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO: Ed Palagyi and Dave Harlos, Tallahassee  
FROM: Bob Garrett, <sup>RRG</sup> S.W. District, Tampa  
DATE: March 11, 1981  
SUBJECT: BACT, Preliminary Draft, for Nitram Prill Tower Scrubber



At a meeting today with Nitram, Hillsborough County Local Program, and the S.W. District, we discussed permit limitations and stack test requirements with total agreement with those present.

1. BACT

The statement of increase from 19.59 to 28 lbs/hr should be clarified or omitted. The 19.59 lbs/hr is the result of a stack test and applies only to their old low density tower to be used intermittently - perhaps 100 hrs/year.

The emission limit of 26 lbs TSP/hr the company asked for includes 20% more than the BECO scrubber guarantee. We feel this is the limit we should set. Unless you hear from HCEPC, they are in agreement with us. The company accepts this limit also. *Total for Both stacks*

*IN*  
*GO BACK TO 26 #/HR ? HCEPC WANTS THIS. SAY CO. AGREES*  
*6 STACKS*  
*no dual permit*

Since this is a scrubber with a steam plume, the 20% opacity limit may be difficult to establish.

2. Stack Test

There are 6-30" manifolded stacks at 125' elevation. They will construct one stack extension with straightening tubes to be switched from one to the other. For the "as built" test they will test all 6 stacks and based on velocity X-section, we may accept less than every stack tested every year. Their question is "do they get credit for straightening vanes for the no. of points from 3 diameters upstream to 6 diameters or more? They will call Dave Harlos on this with more detail. We have their prints.

DEPARTMENT OF ENVIRONMENTAL REGULATION

**ROUTING AND TRANSMITTAL SLIP**

ACTION NO.

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

*EO Palagyi*

INITIAL

DATE

2.

INITIAL

DATE

3.

INITIAL

DATE

4.

*March 30*

INITIAL

DATE

REMARKS:

*3-24-81*

*Told Mr. John Thompson  
that final determination  
would have 26# PMR.  
They have no objections.*

*3-25-81*

*2nd recorder meeting by D.W.*

*and*

*and*

*Bob Barrett*

FROM:

*Sampa*

DATE

*3-16-81*

PHONE

INFORMATION

REVIEW & RETURN

REVIEW & FILE

INITIAL & FORWARD

DISPOSITION

REVIEW & RESPOND

PREPARE RESPONSE

FOR MY SIGNATURE

FOR YOUR SIGNATURE

LET'S DISCUSS

SET UP MEETING

INVESTIGATE & REPT

INITIAL & FORWARD

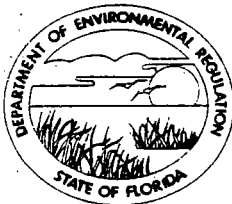
DISTRIBUTE

CONCURRENCE

FOR PROCESSING

INITIAL & RETURN

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



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICANT: Nitram, Inc.  
5321 Hartford Street  
P. O. Box 2968  
Tampa, Florida 33601

PERMIT/CERTIFICATION  
NO. AC 29-39724

COUNTY: Hillsborough

PROJECT: No. 2 Prill Tower

# WORKING DRAFT

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2 and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

For modifications required to produce high density ammonium nitrate along with the installation of a 92 percent efficient particulate matter scrubber on the No. 2 prill tower. The source is located in Tampa, Hillsborough County, Florida. The UTM Coordinates of the prill tower are 353.150E and 3089.00N.

Construction shall be in accordance with the attached permit application form, plans, drawings and other documents except as otherwise noted on page 3, Specific Conditions.

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER form 17-1.122 (16).
2. Nitram Inc., letter of February 10, 1981, (additional information to complete application).
3. BACT Determination

PERMIT NO.: AC 29-39724  
APPLICANT: Nitram, Inc.

**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 Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

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

4. As provided in subsection 403.087(6), 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. 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 Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AC 29-39724  
APPLICANT: Nitram, Inc.

SPECIFIC CONDITIONS:

1. The high density prill tower will not be operated unless the scrubber is in operation.
2. The maximum allowable emission rate of particulate matter will be 28.2 pounds per hour.
3. Visible emissions from the tower shall not exceed 20% opacity.
4. The maximum operation time for the prill tower will be 8,760 hours per year.
5. Construction shall reasonably conform to the plans and schedule given in the application. The applicant shall report any delays in construction and completion of the project covered by this permit to the Department.
6. The proposed tower will be sampled for particulate emissions. Test procedures will be EPA reference methods 1,2,3,4,5, and 9 as described in 40 CFR 60, Appendix A or other state approved methods. Test results will be the average of 3 runs. Minimum sample time and volume per run will be 60 minutes and 30 DSCF.
7. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the Southwest District Office prior to 90 days before the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or until issuance of an operating permit.

Expiration Date: March 31, 1981

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

\_\_\_\_\_ Pages Attached.

\_\_\_\_\_  
Signature

PERMIT NO.:  
APPLICANT:

SPECIFIC CONDITIONS:

Best Available Control Technology (BACT) Determination

Nitram, Inc.

Hillsborough County, Florida

The facility has two existing ammonium nitrate low density prill towers. It is proposed to modify the No. 2 tower to high density operation. Material input to the tower will increase twofold to 55 TPH. The potential particulate emissions will increase twelvefold to 253 lbs./hr. Actual particulate emissions will increase from 19.59 to 28.0 lbs./hr. Included in the proposed modification will be the installation of a Beco Engineering wet scrubber to control particulate emissions. The modified tower is to be operated 8760 hours per year.

BACT Determination Requested by the Applicant:

Pollutant	Emission Limit
Particulates	28 lb/hr.

Date of Receipt of a Complete BACT Application:

February 13, 1981

Date of Publication in the Florida Administrative Weekly:

February 20, 1981

Study Group Members:

There was no formal study group. Comments were obtained from the Southwest District, New Source Review and Air Modeling section.

BACT Determined by DER:

Pollutant	Emission Limit
Particulates	28 lb/hr.

Pollutant emission control device to be a Beco Engineering vertical flow, two-stage, vortex scrubbing system discharging 200,000 ACFM of air at 180° F.

Visible Emission                      Maximum 20% opacity

Justification of DER Determination:

The modification is located in an area classified nonattainment for the air pollutant, particulate matter (17-2.13(1)(a)FAC). The allowable increase in emissions of 8.41 lb/hr (37 TPY) exempts the source from the provisions of 17-2.17(5)-(7) FAC and requires permitting in accordance with the standards of 17-2.17(4)FAC,

Victoria Tschinkel  
February 25, 1981  
Page Two

(17-2.17(3)(a) 1.a.(ii). FAC). There is no applicable NSPS for this source, therefore a BACT determination was made, 17-2.03(1) FAC. The emission limit determined as BACT is more stringent than RACT for miscellaneous manufacturing process operations (17-2.13(3)(1) 2.a.FAC).

Details of the Analysis May be Obtained by Contacting:

Edward Palagyi, BACT Coordinator  
Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Recommended by:

Steve Smallwood  
for Steve Smallwood, Chief, BAQM

Date:

March 5, 1981

Approved:

Victoria Tschinkel  
Victoria Tschinkel, Secretary

Date:

March 8, 1981



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.

1. PROPOSED DEPARTMENT ACTION:

The Department intends to issue the requested construction permit to Nitram, Inc. for modification of its No. 2 ammonium nitrate prill tower in Hillsborough County, Florida. The modification involves increasing the ammonium nitrate density in their product and installing a scrubbing system on the tower to control particulate matter emission. The permit will include conditions to assure compliance with Chapter 17-2, Florida Administrative Code (F.A.C.).

Any person wanting to comment on this action may do so by submitting such comments in writing to:

Willard Hanks  
Florida Department of Environmental  
Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Any comments received within thirty days after publication of this notice will be considered and noted in the Department's final determination.

Any person whose substantial interest would be affected by the issuance or denial of this permit may request an administrative hearing by filing a petition for hearing as set forth in Section 28-5.15, F.A.C. (copy attached). Such petition must be filed within 14 days of the date of this notice with:

Mary Clark  
Florida Department of Environmental  
Regulation  
Office of General Counsel  
2600 Blair Stone Road  
Tallahassee, Florida 32301

II. SUMMARY OF EMISSIONS AND AIR QUALITY ANALYSIS:

a. The No. 2 prill tower presently emits particulate matter (ammonium nitrate) and water vapor. No other criteria pollutants are emitted from the tower.

b. The location of the prill tower is in an area of Hillsborough County that is classified nonattainment for particulate matter.

c. The modification will increase the potential emission rate for particulate matter but the allowable emission rate will not be changed.

d. As the allowable emissions of particulate matter (28.2 pounds per hour) will not change, the modification will not cause or contribute to a violation of any ambient air quality standard or prevention of significant deterioration (PSD) increment.

III. SYNOPSIS OF APPLICATION:

a. Name and Address of Applicant:

Nitram, Inc.  
5321 Hartford Street  
P. O. Box 2968  
Tampa, Florida 33601

b. Description of Project and Controls:

The project consists of a modification to Nitram's No. 2 ammonium nitrate prill tower which will increase the production rate through the use of higher density (99%+) ammonium nitrate feed. It includes the installation of a scrubbing system having a minimum efficiency of 92 percent to remove the additional particulate matter generated from high density ammonium nitrate manufacturing. The proposed scrubbing system will reduce particulate emission to the current allowable emission rate.

c. Description of Operation:

In the No. 2 prill tower ( 20'x20'x200'), high density dissolved ammonium nitrate falls from the top of the tower countercurrent to an airflow. The airflow evaporates water and cools the falling droplets which cause them to crystallize before they reach the bottom of the tower. The airflow is forced upward from the bottom of the tower by two fans. The prilling process is highly conducive to particulate entrainment. The scrubber on the top of the tower removes particulate matter and moisture from the airflow.

IV. RULE APPLICABILITY:

The source is located in an area classified nonattainment for the air pollutant, particulate matter (17-2.13(1)(a)). The zero increase in allowable emissions exempts the source from the provisions of 17-2.17(5)-(7) and requires permitting in accordance with the standards of 17-2.17(4) under the limited NSR exemption allowed by 17-2.17(3)(a)1.a.(ii). There is no applicable New Source Performance Standard for this source, therefore a BACT determination was made pursuant to 17-2.03(1).

V. FINDINGS:

1. The modification will increase the process input rate from 55,600 pounds per hour of low density ammonium nitrate (96%  $\text{NH}_4\text{NO}_3$ ) to 110,000 pounds per hour of high density ammonium nitrate (99+%  $\text{NH}_4\text{NO}_3$ ).

2. The latest reported particulate matter emission rate from the No. 2 prill tower of 19.59 lb/hr is less than the present maximum allowable rate of 28.2 lb/hr. The maximum allowable emission rate after modification will remain unchanged at 28.2 lb/hr. Production and potential emissions from the prill tower can be increased without changing the maximum allowable emission rate because of the installation of a new scrubber.

3. Ammonium ( $\text{NH}_3$ ), a non-criteria pollutant, is also emitted from the prill tower. The potential emission rate of 210 pounds per hour will be reduced to approximately 1.5 pounds per hour because ammonia will be adsorbed in the scrubber water.

VI. SPECIFIC CONDITIONS:

Specific Conditions are listed in Construction Permit AC 29-39724.

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**INTEROFFICE MEMORANDUM**

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO: John C. Thompson, Nitram, Inc.  
Dan Williams, DER, Southwest District  
Frank Shindle, Hillsborough County Environmental  
Protection Commission

FROM: *Steve* Steve Smallwood, Chief, Bureau of Air Quality Management

DATE: March 20, 1981

SUBJ: Preliminary Determination for Air Construction Permit -  
Nitram, Inc.

Attached is one copy of the application, BACT determination, preliminary determination and proposed permit to modify Nitram's No. 2 ammonium nitrate prill tower in Tampa.

Please submit in writing any comments you wish to have considered concerning this action to John Svec of the Bureau of Air Quality Management.

SS:dav

CONSTRUCTION NOTICE

The Florida Department of Environmental Regulation (DER) has received an Application from and intends to issue a Construction Permit to Nitram, Inc. for the modification of an ammonium nitrate prill tower to be located at 5321 Hartford Street, in Hillsborough County, Florida. A Determination of Best Available Control Technology was required. Copies of the Applications, BACT Determination, Technical Evaluation, and Departmental Intent are available for inspection at the following Offices:

Department of Environmental Regulation  
Southwest District  
7601 Highway 301 North  
Tampa, Florida 33610

Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Hillsborough County Environmental  
Protection Commission  
1900 9th Avenue  
Tampa, Florida 33605

Comments on this action shall be submitted in writing to Willard Hanks of the Tallahassee Office, within 30 days of this notice.

To appear in Tampa Tribune as soon as possible.

Technical Evaluation  
and  
Preliminary Determination

Nitram, Inc.

No. 2 Ammonium Nitrate High Density Prill Tower  
Hillsborough County, Florida

Construction Permit Number:

AC 29-39724

Florida Department of Environmental Regulation

Bureau of Air Quality Management

Central Air Permitting

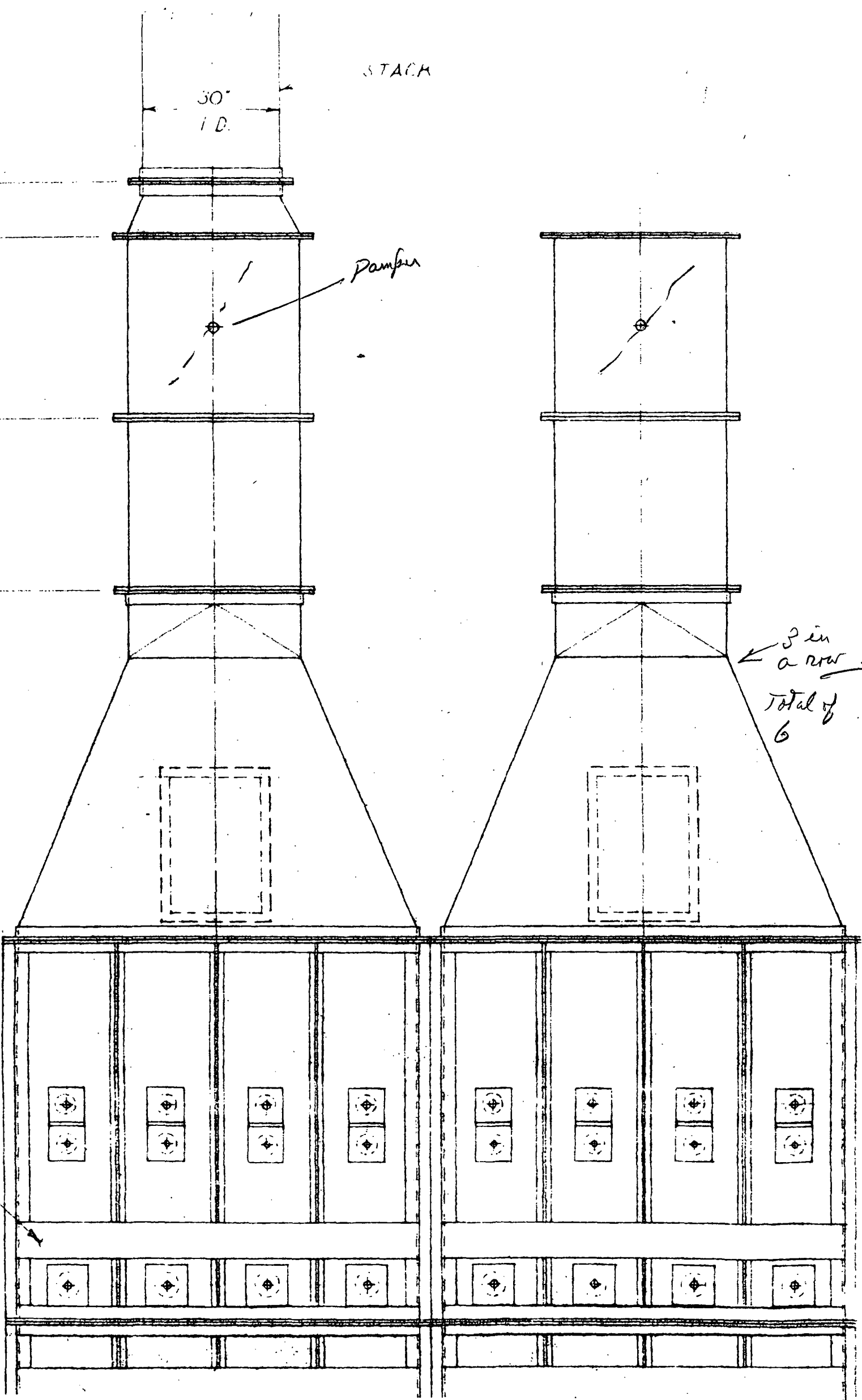
March 2, 1981

STACK

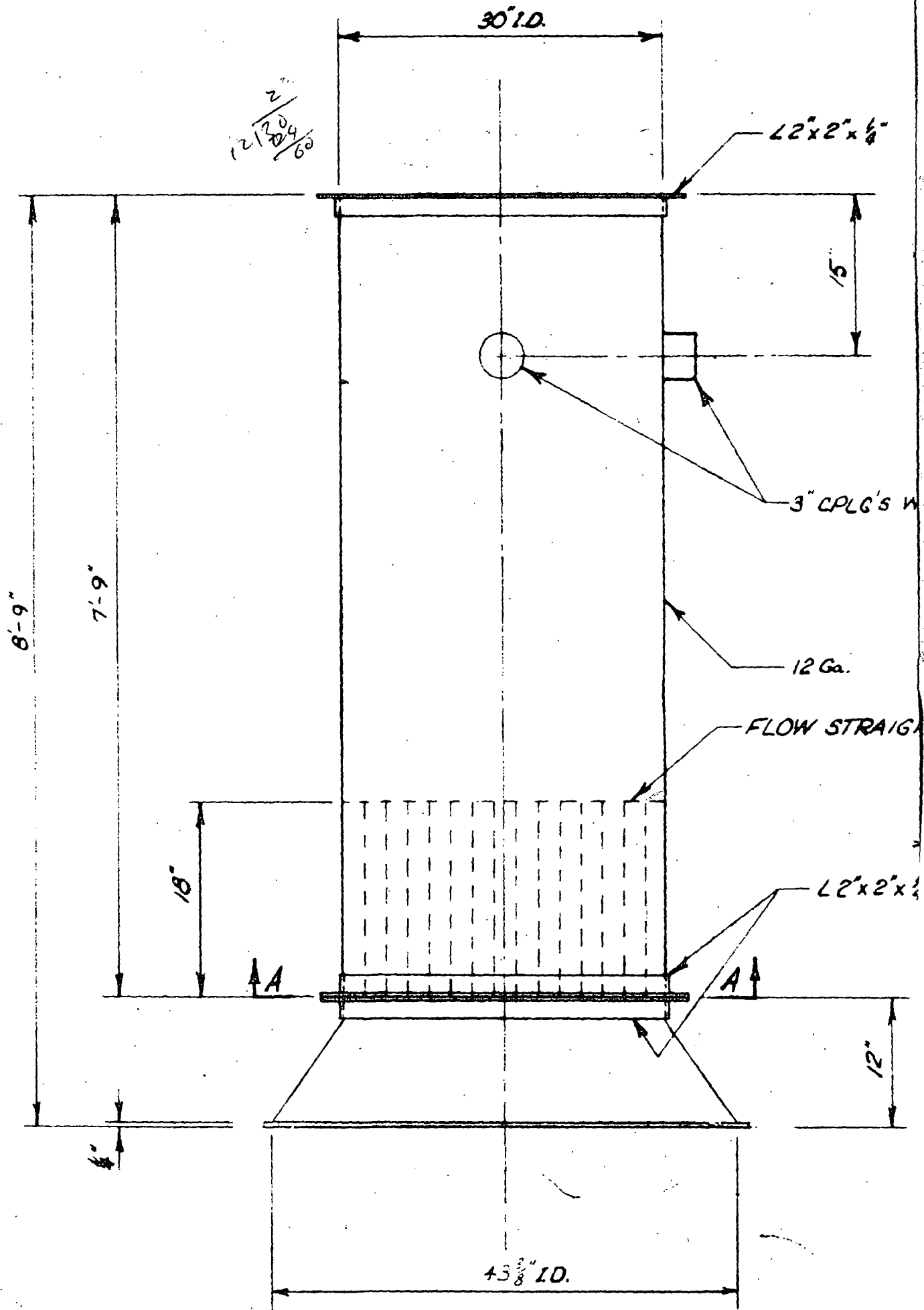
30"  
I.D.

Panther

3 in  
a row  
Total of  
6







$\frac{2}{12 \frac{20}{24} \frac{60}{60}}$

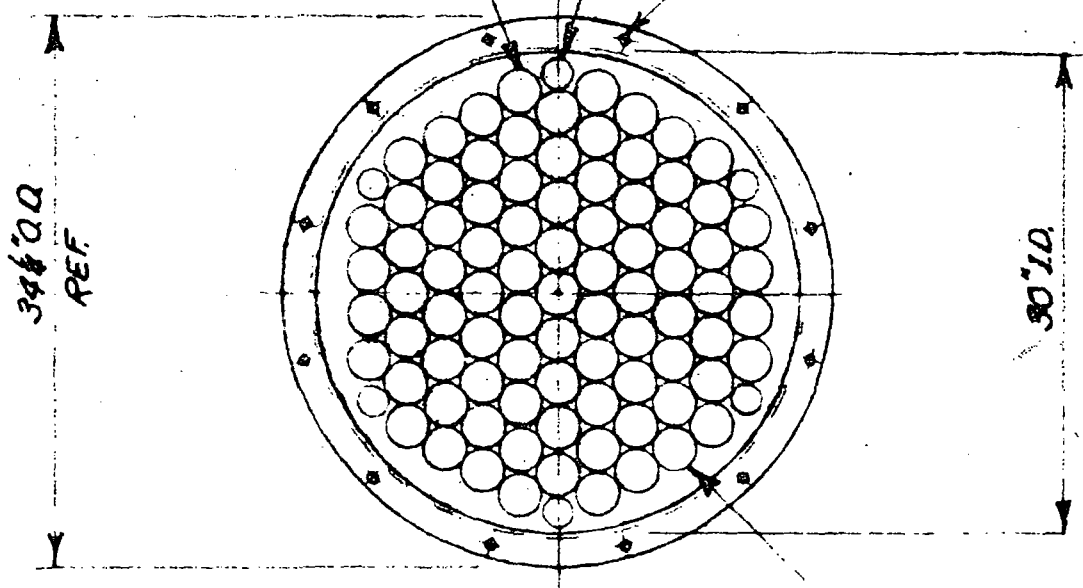
Sampling Stack

MA  
 BE

2 3/4" O.D. x 16 GA SST. TUBING  
(85) PIECES REQ'D.)

1 3/4" x 16 GA. SST. TUBING  
(6) PIECES REQ'D.)

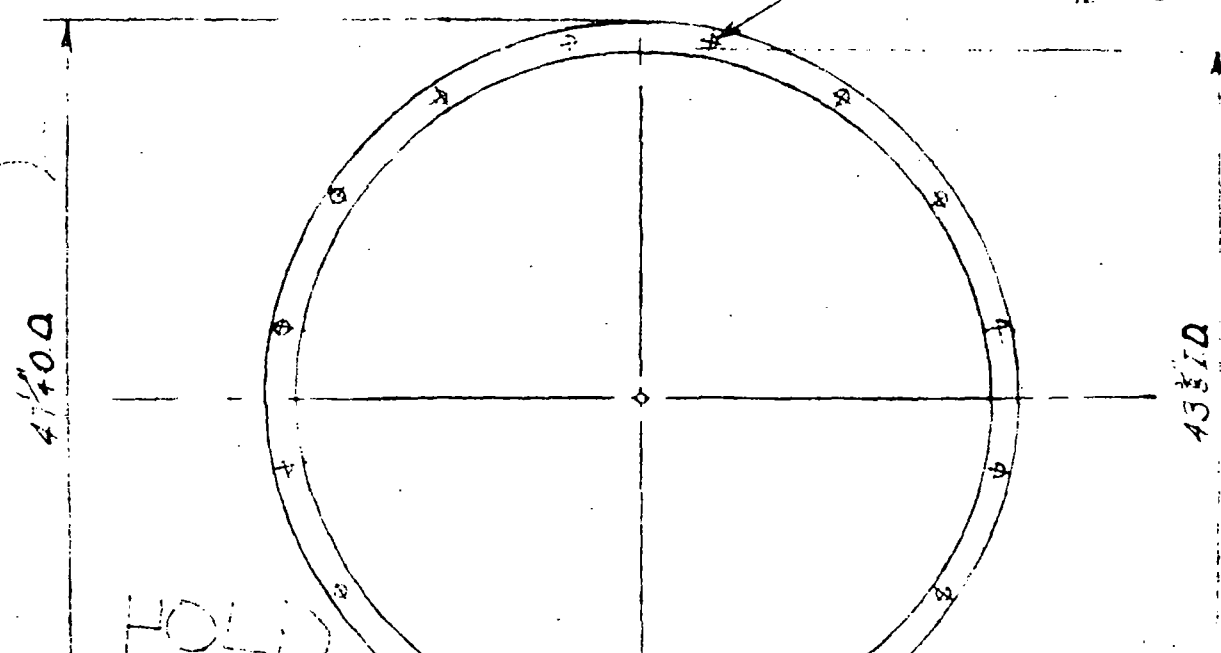
(12) 5/8"  $\phi$  HOLES EQ. SP.  
ON 32 3/4" BC.



SECTION A-A

— FLOW STRAIGHTENER

(16) 9/16"  $\phi$  HOLES EQ. SP.  
ON 45 3/16" BC.



HOLD