

May 12, 1997

Mr. C.H. Fancy, P.E.
Chief, Bureau of Air Regulation
Division of Air Resources Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32301
Mail Drop 5500

DRAFT

Re: City of Jacksonville, Buckman STP Sludge Incinerators
Proposed Air Permit Revisions
Information Requested

Dear Mr. Fancy:

At our last meeting on the air construction permit application for Gulf Coast Recycling, you asked me to provide you with :

- (1) A copy of the current air operating permits for the Two sludge incinerators.
- (2) A description of the specific revisions to the permits that are proposed, why the changes are needed, and which rule are involved.

CURRENT AIR OPERATING PERMITS

A copy of the current air operation permit for each incinerator is enclosed. The changes made with respect to the previous air permits were made by the Jacksonville local air program as the Department's agency, at the request of the Jacksonville Department of Public Works to allow more short term operating flexibility.

REASON FOR PERMIT REVISIONS

The application for the first incinerator was submitted to the local air program on April 9, 1979. The particulate emission limit was 0.02 gr/DSCF @ 12% CO₂. The existing gas volume given in the application was 28,074 DSCF @ 12% CO₂. That gives 4.81 lbs PM per hour @ rated capacity. The throughput of dry sludge @ rated capacity was 8811 lbs per hour (4.4 ton per hour). There were no restrictions in the hours of operation. At 4.81 lbs per hour, the annual PM emissions would be 21 tons per year.

DRAFT

Mr. C.H. Fancy, P.E.
May 12, 1997
Page 2

Neither ERM or the local air program staff have been able to find the construction permit that was issued. On February 22, 1982 and amendment to what was probable the first construction permit was issued. In that operating permit the PM emissions were limited to 0.02 gr/DSCF @ 12% CO₂, 4.99 lbs, and 14.99 tons per year. The last to limits were to avoid being subject to the PM Nonattainment Area RACT rules. There were no limits on the hours of operation.

On January 23, 1985, an air construction permit (AC16-91684) was issued by the Department's Northeast District Office. The PM emissions were limited to 1.79 lbs per hour and 7.84 tons per year. There is no reference to the 0.02 gr/DSCF @ 12% CO₂ standard. It may have been a county standard. The maximum dry sludge processing rate was limited to 1.375 tons per hour. There were no limits on the hours of operation, but there was a limit on the total amount of dry sludge that could be processed by both incinerators per year: 23,076.9. That number times the EPA NSPS PM emission standard, 1.3 lbs per ton of dry sludge processed gives 14.99 tons PM per year. Apparently the district air staff concluded that the first incinerator was also subject to the NSPS incinerator standard. The limit on the total amount of sludge processed per year ensured that the annual PM emissions from the plant would be below the PM Nonattainment Area RACT cutoff level: 15 tons per year.

(To Be completed)

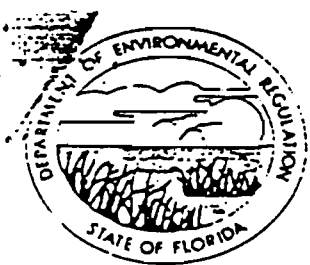
After you have reviewed and considered this information, I would like to meet with you to discuss how we need to proceed to resolve this issue as expeditiously as possible. If there are any other outstanding issues, please identify them for me as soon as possible.

Sincerely,

Stephen Smallwood, P.E.
Project Manager
Air Quality Services

Tallahassee Office
SS/ssm

Sludge Incinerator No. 1



BEST AVAILABLE COPY

Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Carol M. Browner, Secretary

Mr. Patrick T. Karney, P.E., Chief
Buckman Wastewater Treatment Plant
2221 Buckman Street
Jacksonville, FL 32206-3396

file: 710.01
c: RWF

RE: Duval County - Air Pollution
Buckman Wastewater Treatment Plant
No. 1 Incinerator
Permit No. A016-170503
I.D. No. 31-16-0166-01

ERM-SOUTH, INC.
JAN 19 1996
RECEIVED

Dear Mr. Karney:

The Department of Health, Welfare and Bio-Environmental Services (HWB) and the Department of Environmental Regulation (DER) have approved the revision of the captioned permit(s) as follows:

SPECIFIC CONDITION 10.

FROM: The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/vr</u>	<u>Other</u>	<u>Opacity</u>
01	PM	2.1	9.2	1.3 lb/ton sludge	
	VE				20%
	Mercury			3200 g/24 hrs	
	OO			None allowed	

TO: The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/vr</u>	<u>Other</u>	<u>Opacity</u>
01	PM	3.4	9.2	1.3 lb/ton sludge	
	VE				20%
	Mercury			3200 g/24 hrs	
	OO			None allowed	

SPECIFIC CONDITION 11.

FROM: Operation shall be limited to 8760 hours per year.

TO: Operation shall be limited to 5411 hours per year.



Florida Department of Environmental Regulation

Northeast District • 3426 Bills Road • Jacksonville, Florida 32207 • 904-798-4200

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary
Ernest Frey, Deputy Assistant Secretary

Permittee:	LD. Number:	31-16-0166-01
Buckman Street Sewage Treatment Plant	Permit/Certification Number:	AO16-170503
2221 Buckman Street	Date of Issue:	November 30, 1994
Jacksonville, FL 32206	Expiration Date:	Duval
	County:	30:21:10/81:37:46
	Latitude/Longitude:	E-439.200 N-3357.800
	UTM:	Sludge Incinerator No. 1
	Project:	

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

For the operation of a natural gas-fired municipal sewage sludge incinerator.

Particulate Matter (PM) emissions shall be controlled as follows:

<u>Source</u>	<u>Control Equipment</u>
Sludge incinerator No. 1	Venturi scrubber and impingement scrubber (in series)

Emission source(s) shall be as follows:

<u>Point</u>	<u>Source</u>
01	Sludge incinerator No. 1

Located at 2221 Buckman Street, Jacksonville, Florida 32206

Supporting documents shall be as follows:

- (1) Permit application received September 25, 1989.
- (2) Permit AO16-91728

Permittee:

Buckman Street Sewage Treatment Plant

I.D. Number:

Permit/Certification Number:

Date of Issue:

Expiration Date:

31-16-0166-01

AO16-170503

November 30, 1994

SPECIFIC CONDITIONS:

- 297.310 1. Permittee shall notify the Bio-Environmental Services Division (BESD) at least fifteen (15) days prior to source testing in accordance with Rule 17-2.700(2)(a)9., Florida Administrative Code (FAC), and Rule 2.501, Jacksonville Environmental Protection Board (JEPB).
- 297.310 2. Copies of the test report(s) shall be submitted to BESD within forty-five (45) days of completion of testing in accordance with Rule 17-2.700(7)(b), FAC, and Rule 2.501, JEPB.
- 297.310 3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, BESD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
- G 4. Any revision(s) to a permit (and application) shall be submitted and approved prior to implementing.
- S/L ONLY 5. Control equipment shall be provided with a method of access that is safe and readily accessible.
- 297.310 6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-2.700(4), FAC, and Rule 2.207, JEPB.
- G 7. Permittee shall submit an annual operation report to BESD for this source on the form supplied for each calendar year on or before March 1 in accordance with Rule 17-4.140, FAC.
- 8. The following pollutant(s) shall be tested at intervals indicated from the date of October 1, 1989.

Pt. No.	Pollutant	Interval	Test Method
01	Particulate Matter (PM)	12 Months	EPA Reference Method (RM)
	Visible Emissions (VE)	12 Months	EPA RM 9
	Mercury	12 Months	EPA RM 101A/105

9. The applicable emission limiting rules shall be as follows:

Pt. No.	Pollutant	¹ FAC	² JEPB	Other
01	PM	17-2.660(2)(a)	2.208	40CFR 60.152(a)(1) ✓
	VE	17-2.660(2)(a)	2.208	40CFR 60.152(a)(2) ✓
	Mercury*	17-2.670(2)(a)	2.209	40CFR 61.52(b) ✓
	G Objectionable Odors (OO)	17-2.620(2)	2.205(a)	376.110 Ordinance Code S/L ONLY

*National Emission Standards for Hazardous Air Pollutants (NESHAP)

Permittee:
Buckman Street Sewage
Treatment Plant

LD. Number: 31-16-0166-01
Permit/Certification Number: AO16-170503
Date of Issue:
Expiration Date: November 30, 1994

10. The maximum allowable emissions shall be as follows:

Pt. No	Pollutant	lbs/hr	T/vr	Other	Opacity
01	PM ✓	2.1 3.4	9.2	1.3 lb/ton sludge	20%
	VE ✓				
	Mercury			3200 g/24hrs	
	G OO SR ONLY			None allowed	

11. Operation shall be limited to ~~8760~~ hours per year.
5411
12. The maximum process input shall be limited to ~~1.62~~ tons per hour of dry sludge.
2.6
13. A sludge flow measuring device shall be installed, calibrated and maintained in accordance with procedures outlined in 40CFR 60.153(a)(1). ✓
14. The facility annual dry sludge input is limited to 23,076.9 tons pursuant to 17-2.650(2)(b)1., FAC.
- G 15. The permittee shall apply for a renewal operation permit sixty (60) days prior to the expiration date of this permit in accordance with Rule 17-4.090, FAC. Failure to submit a renewal application sixty (60) days prior to the expiration date shall result in the assessment of a penalty in accordance with Section 360.701(a)19., Ordinance Code.

City of Jacksonville
Department of Health, Welfare, and
Bio-Environmental Services

James L. Manning
James L. Manning, P.E., Deputy Director

State of Florida
Department of Environmental Regulation

Ernest E. Frey
Ernest E. Frey, Deputy Assistant Secretary

- 1 Florida Administrative Code
2 Jacksonville Environmental Protection Board

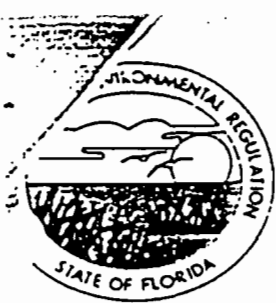
FILING AND ACKNOWLEDGEMENT
FILED on this date, pursuant to S120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.
Betsy Williams 12-15-89
Clerk

5 Pages Attached

Page 5 of 5

DER FORM 17-1.201(5) Effective November 30, 1982
(Disc: 13/32, 33, 34 GW))

Sludge Incinerator No. 2



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Carol M. Browner, Secretary

Mr. Charles L. Logue, P.E., Chief
Buckman Sewage Treatment Plant
2221 Buckman Street
Jacksonville, FL 32206-3396

RE: Duval County - Air Pollution
Buckman Sewage Treatment Plant
No. 2 Sludge Incinerator
Permit No. A016-210491
I.D. No. 31-16-0166-05

Dear Mr. Logue:

The Air Quality Division (AQD) and the Department of Environmental Regulation (DER) have approved the revision of the captioned permit as follows:

SPECIFIC CONDITION NO. 10

FROM: The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
05	PM	1.79	7.84	1.3 lbs/ton dry sludge	
	VE				20%
	Hg			3200 grams/24 hours	
	OO			None allowed	

TO: The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
05	PM	2.60	7.84	1.3 lbs/ton dry sludge	
	VE				20%
	Hg			3200 grams/24 hours	
	OO			None allowed	

SPECIFIC CONDITION NO. 11

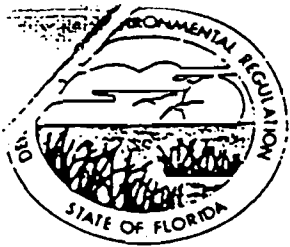
FROM: Operation shall be limited to 8760 hours per year.

TO: Operation shall be limited to 6031 hours per year.

SPECIFIC CONDITION NO. 12

FROM: The maximum process input rate shall be limited to 1.375 tons per hour of dry sludge.

TO: The maximum process input rate shall be limited to 2.0 tons per hour of dry sludge.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Carol M. Browner, Secretary

Permittee:	I.D. Number:	31-16-0166-05
Buckman Sewage Treatment Plant	Permit/Certification Number:	A016-210491
2221 Buckman Street	Date of Issue:	05-28-92
Jacksonville, FL 32206	Expiration Date:	April 30, 1997
	County:	Duval
	Latitude/Longitude:	30:21:10/81:37:46
	UTM: Zone 17	E-439.200 N-3357.800
	Project:	Sludge Incinerator #2

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

For the operation of an eight (8) hearth municipal sludge incinerator fired by natural gas. No. 2 fuel oil is on standby.

Particulate Matter (PM) emissions shall be controlled as follows:

<u>Source</u>	<u>Control Equipment</u>
Sludge Incinerator No. 2	SWEMCO Scrubber System Model SWHE-8.5
	A. Venturi Scrubber
	B. Water Precooler Scrubber
	C. Diffuser Impingement Scrubber

Emission source(s) shall be as follows:

<u>Point</u>	<u>Source</u>
05	Sludge Incinerator No. 2

Located at 2221 Buckman Street, Jacksonville, FL 32206

Supporting documents shall be as follows:

- (1) Permit A016-132601
- (2) Permit application received March 11, 1992

SPECIFIC CONDITIONS:

1. Permittee shall notify the Air Quality Division (AQD) fifteen (15) days prior to source testing in accordance with Rule 17-2.700(2)(a)9., Florida Administrative Code (FAC), and Rule 2.501, Jacksonville Environmental Protection Board (JEPB).
2. Copies of the test report(s) shall be submitted to AQD within forty-five (45) days of completion of testing in accordance with Rule 17-2.700(7)(b), FAC, and Rule 2.501, JEPB.
3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, AQD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
4. Any revision(s) to a permit (and application) shall be submitted to and approved by AQD prior to implementing.
5. Control equipment shall be provided with a method of access that is safe and readily accessible.
6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-2.700(4), FAC, and Rule 2.501, JEPB.
7. Permittee shall submit an annual operation report to AQD for this (these) source (sources) on the form(s) supplied for each calendar year on or before March 1.
8. The following pollutant(s) shall be tested at intervals indicated from the date of January 1, 1992:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>Interval</u>	<u>*Test Method</u>
05	Particulate Matter (PM)	12 months	EPA Reference Method (RM) 5*
	Visible Emissions (VE)	12 months	EPA RM 9
	Mercury (Hg)	12 months	EPA RM 101A/105**

*As described in 40 CFR 60, Appendix A and 40 CFR 60.154 (July 1, 1990)
 **As described in 40 CFR 60, Appendix A and 40 CFR 61.53 (July 1, 1990)

Note: Tests shall be performed simultaneously

9. The applicable emission limiting rules shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>¹FAC</u>	<u>²JEPB</u>	<u>Other</u>
05	PM	17-2.660(2)	2.208	40 CFR 60.152(a)(1)
	VE	17-2.660(2)	2.208	40 CFR 60.152(a)(2)
	Hg	17-2.670(2)(b)	2.209	40 CFR 61.52(b)
	Objectionable Odors (OO)	17-2.620(2)	2.205(a)	376.110 Ordinance Code

10. The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/vr</u>	<u>Other</u>	<u>Opacity</u>
05	PM	1.79	7.84	1.3 lbs/ton dry sludge	
	VE				20%

Permittee:

Jacksonville Sewage Treatment Plant

I.D. Number:

Permit/Certification Number:

Date of Issue:

Expiration Date:

31-16-0166-05

A016-210491

April 30, 1997

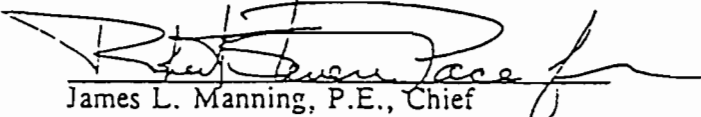
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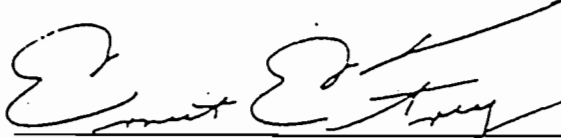
<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
05	Hg OO			3200 grams/24 hours None allowed	

11. Operation shall be limited to 8760 hours per year.
12. The maximum process input rate shall be limited to 1.375 tons per hour of dry sludge.
13. The maximum heat input of natural gas or fuel oil shall be limited to 30 x 10⁶ BTU per hour.
14. The maximum facility annual dry sludge input shall be limited to 23,076.9 tons.
15. A sludge flow measuring device shall be operated, calibrated, and maintained in accordance with 40 CFR 60.153(a)(1).
16. The permittee shall apply for a renewal operation permit sixty (60) days prior to the expiration date of this permit in accordance with Rule 17-4.090, FAC.

City of Jacksonville
Air Quality Division

State of Florida
Department of Environmental Regulation

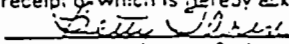

James L. Manning, P.E., Chief


Ernest E. Frey, P.E., Director of District Management

¹Florida Administrative Code
²Jacksonville Environmental Protection Board

JLM/EEF/nic

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

 5/25/92
Clerk Date



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

August 15, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Stephen Smallwood, P.E.
Air Quality Services
ERM-South, Inc.
P.O. Box 7499
Tallahassee, FL 32314

RE: City of Jacksonville, Buckman STP Sludge Incinerators

Dear Mr. Smallwood:

The Department has reviewed your letter for a need for greater flexibility in the hours of operation of the two sewage sludge incinerators located at the Buckman Street Municipal Sewage Treatment Plant in Jacksonville, Florida. Based on the telephone conversation with Syed Arif of my staff, you indicated that the facility might be a major PSD facility. The potential to emit for carbon monoxide (CO) emissions could be more than 250 tons per year. If this is true, please provide the following information listed below in order for the Department to determine if a PSD review is required for this change.

1. Please indicate why the facility did not go through a PSD review initially even though the potential to emit for CO was more than 250 tons per year. Is it possible that later modifications to the facility increased the CO emissions to be above 250 tons per year, and somehow the PSD review was neglected?
2. If the facility is a major PSD facility, please make a contemporaneous emission change {Rule 62-212.400(2)(e)3., F.A.C.} calculation for mercury see if your request triggers the PSD review. Provide the Department with a copy of those calculations.

The Department will resume processing this request after receipt of the requested information.. If you have any questions on this matter, please call Syed Arif at 904/488-1344.

Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/sa

cc: Mr. Richard Robinson, Duval County
Mr. Chris Kirts, DEP

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

P 265 659 441

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to <i>Steve Smallwood</i>	
Street & Number <i>ERM - South</i>	
Post Office, State, & ZIP Code <i>Tall. FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>Buckman 8-18-97</i> <i>STP S.I.</i>	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to: <i>Mr. Steve Smallwood, PE</i> <i>ERM - South</i> <i>PO Box 7499</i> <i>Tallahassee, FL 32314</i>	4a. Article Number <i>P265 659 441</i>
5. Received By: (Print Name) <i>Andi Varki</i>	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
6. Signature: (Addressee or Agent) <i>Xore [Signature]</i>	7. Date of Delivery <i>8-18-97</i>
	8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

RECEIVED

SEP 22 1997

BUREAU OF
AIR REGULATION

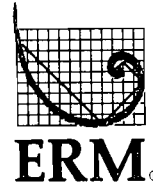
September 19, 1997

Project No. 710.01, Task 3

A.A. Linero, P.E., Administrator
New Source Review Section
Bureau of Air Regulation
Florida Department of
Environmental Protection
2600 Blair Stone Road MD5500
Tallahassee, FL 32399-2400

Environmental
Resources
Management

1901 S. Congress Avenue
Suite 480
Boynton Beach, Florida
33426-6556
(561) 736-4648
(561) 735-7793 (fax)



RE: Jacksonville Electric Authority (Formerly City of Jacksonville)
Buckman Water Reclamation Facility Sludge Incinerators
Response to Your Request for Additional Information

Dear Mr. Linero:

Thank you for your above referenced letter. We are very interested in reaching closure on this issue. Following is our response to the two questions that you posed in that letter.

Question 1

Please indicate why the facility did not go through a PSD review initially even though the potential to emit for CO was more than 250 tons per year. Is it possible that later modifications to the facility increased the CO emissions to be above 250 tons per year and somehow the PSD review was neglected?

Response

Incinerator 1 was permitted in 1976, prior to the 1977 Clean Air Act Amendments (CAAA) that resulted in the current PSD Rule. Carbon monoxide emissions of Incinerator 1 were originally permitted at greater than 250 tons per year. In 1985, the Department of Environmental Protection (DEP) issued a federally enforceable Air Construction Permit (ACP) for the construction of Incinerator 2. This ACP explicitly established two key conditions:

- It limited total facility (i.e., both incinerators) sludge processing to *less than 23,076.9 tpy*; and
- It limited the sludge processing rate for Incinerator 2 to less than 1.375 tph.

The combination of these two limits effectively caused Incinerator 1 to become a synthetic minor under PSD by reducing the carbon monoxide emissions from Incinerator 1 to less than 250 tpy. In addition, the increase in CO emissions due to Incinerator 2 was less than 250 tpy. Thus, the facility was not subject to PSD review.

Since that time, there have been no changes to the facility that would constitute a modification requiring PSD review. Similarly, changes to the facility's permit conditions requested in our letter dated July 10, 1997 do not constitute a modification that would require a PSD review.

Question 2

If the facility is a major PSD facility, please make a contemporaneous emission change [Rule 62-212.400(2)(e)3., F.A.C.] calculation for mercury to see if your request triggers the PSD review. Provide the Department with a copy of those calculations.



Response

As indicated in our response to Question 1, changes to the permit conditions requested in our letter of July 10, 1997 do not involve modifications or an increase in annual emissions that would trigger PSD review. Unless a physical or operational change is proposed that would constitute a modification as defined in the Rule, there is no requirement to determine whether there is a net increase in emissions. It is our further understanding that no physical or operational changes have occurred in the past five years that would have triggered an increase in annual mercury emissions. Thus, the calculation of mercury emissions has not been a part of our work. We respectfully request that you reconsider the request for these calculations as they appear to be beyond the scope of the Rule requirements.

We hope that this response alleviates your concerns and will facilitate the DEP's expeditious approval of the requested changes in permit conditions. Thank you for your consideration.

Sincerely,

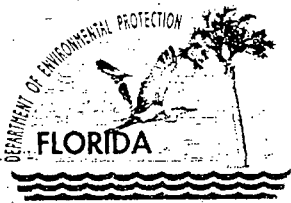
Elaina J. Modlin

Stephen Smallwood, P.E.
Air Quality Services

mmm

- c: Chris Kirts - DEP
- David Kowalski, P.E. - JEA
- Elaina Modlin, P.E. - ERM, Boynton Beach
- Chuck Roberts - ERM, Boynton Beach
- Richard Robinson - Duval County

cc: S. Arif, BAR



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

September 30, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Stephen Smallwood, P.E.
Air Quality Services
ERM-South, Inc.
P.O. Box 7499
Tallahassee, FL 32314

Re: Jacksonville Electric Authority
Buckman STP Sludge Incinerators

Dear Mr. Smallwood:

We have reviewed your response dated September 19, 1997, to the Department's request for additional information dated August 15, 1997. Based on our review, we have determined that the proposed permit changes do not constitute a physical change to the facility or a change in the method of operation of the facility, and will therefore not require a PSD review. The changes to the Air Permits for the No. 1 and No. 2 sludge incinerators at the Buckman Street Sewage Treatment Plant can be processed and implemented by the FDEP Northeast District Office in conjunction with the Duval County Local Program. Please submit your request for these changes to the above referenced offices.

If you have any questions regarding this matter, please contact Mr. Syed Arif at 850/488-1344.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/sa/a

cc: Mr. Chris Kirts, NED
Mr. Richard Robinson, RESD

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

P 265 659 463

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to	
Steve Smallwood	
Street & Number	
ERM-South	
Post Office, State, & ZIP Code	
Tall. Fl	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	9-30-97
JEFF Buckman SA	

PS Form 3800, April 1995

Fold at line over top of envelope to

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
 - Restricted Delivery
- Consult postmaster for fee.

3. Article Addressed to:
 Steve Smallwood, PE
 Air Quality Serv.
 ERM-South Inc.
 P O Box 7499
 Tallahassee, Fl 32314

4a. Article Number
 P 265 659 463

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

5. Received By: (Print Name)

7. Date of Delivery

6. Signature: (Addressee or Agent)
 X [Signature]

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

RECEIVED

JUL 11 1997

July 10, 1997

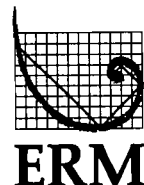
BUREAU OF
AIR REGULATION

Project No. 710.01

Mr. C.H. Fancy, P.E.
Chief, Bureau of Air Regulation
Division of Air Resources Management, MD 5500
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32301

ERM-South, Inc.

2700 Blair Stone Road
Suite C
Tallahassee, Florida 32301
Mail Address:
P.O. Box 7499
Tallahassee, Florida 32314
(904) 656-9700
(904) 656-9752 (fax)



RE: City of Jacksonville, Buckman STP Sludge Incinerators; Proposed
Air Permit Revisions; Request for Formal Rule Applicability
Determination.

Dear Mr. Fancy:

The Jacksonville Electric Authority (JEA) Waste Water Treatment Group (WWT), formerly the City of Jacksonville Department of Public Utilities, has identified a need for greater flexibility in the hours of operation of the two sewage sludge incinerators located at their Buckman Street Municipal Sewage Treatment Plant. This need is prompted by the fact that it is periodically necessary to take one or the other incinerators off-line for some time to perform routine or nonroutine maintenance. There is limited on-site storage for untreated sludge, and it is undesirable to build an accumulation of untreated sludge at this site, which is located in close proximity to a residential area.

A review of applicable construction permit conditions and anticipated operating needs has demonstrated that changes to the permit conditions which would allow the needed operational flexibility can be implemented without causing an increase in the facility's annual emissions. In addition, this can be achieved without any physical changes to the facility.

Therefore, on behalf of JEA's WWT, Environmental Resources Management (ERM) requests that the Florida Department of Environmental Protection (FDEP) Bureau of Air Regulation (BAR) review the proposed permit changes described in this letter and make a determination as to whether the proposed changes would require a Prevention of Significant Deterioration (PSD) preconstruction review by the BAR's New Source Review Section in Tallahassee.

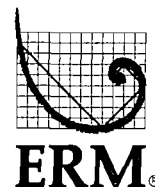
9501 Princess Palm Avenue
Suite 100
Tampa, Florida 33619-8319
(813) 622-8727
(813) 621-8504 (fax)

5805 Blue Lagoon Drive
Suite 350
Miami, Florida 33126-2063
(305) 267-6667
(305) 267-1117 (fax)

1901 S. Congress Avenue
Suite 480
Boynton Beach, Florida
33426-6556
(561) 736-4648
(561) 735-7793 (fax)

FACILITY DESCRIPTION

The WWT operates two municipal sludge incinerators at the Buckman Street Sewage Treatment Plant. These incinerators are used to treat sludge from the Buckman, Sewer District II, and Southwest District Sewage Treatment Plants located in Duval County. Currently, the incinerators are used to treat a combined 14,000 dry tons of sludge per year. Projections indicate that by the year 2010, the amount of sludge requiring treatment will approach the current combined permitted limit of 23,076.9 tons per year (air construction permit limit).



Particulate matter (PM10) emissions from each incinerator are controlled by a system that comprises a venturi impact scrubber, water contact pre-cooler scrubber, and countercurrent diffuser impingement scrubber. Each incinerator is also equipped with a sludge metering system that indicates the sludge feed rate.

Both incinerators are subject to Environmental Protection Agency's (EPA) New Sources Performance Standard (NSPS), 40 CFR 60, Subpart O - *Standards of Performance for Sewage Treatment Plants*. The NSPS standard for particulate emissions from each sludge incinerator is 1.30 pounds particulate matter per ton of dry sludge fed to the incinerator. EPA Method 5 particulate emissions tests conducted periodically for each incinerator have demonstrated that both units, as currently configured, are capable of complying with the NSPS particulate emission limit.

AIR CONSTRUCTION PERMIT CONDITIONS

The air construction permit application for the No. 1 incinerator was submitted to the Duval County Air Program on April 9, 1979. At this time, the maximum required feed rate was projected to be 4.4 tons per hour. The particulate matter emissions were projected to be 4.8 pounds per hour with an annual particulate matter emission rate of 21 tons per year. There were no restrictions set with regard to the total annual hours of operation for the facility.

On February 22, 1982, the first Air Operating Permit for the No. 1 incinerator was amended. In this amendment, the limit for particulate matter emissions was increased to 4.99 pounds per hour. However, the

annual particulate matter emissions limit was reduced to 14.99 tons per year. These limits were established to keep the potential particulate matter emissions from the incinerator below the Reasonably Available Control Technology (RACT) rule applicability levels that applied to the particulate matter nonattainment area in which the incinerator was located. There were no restrictions set with regard to the annual hours of operation in the amended operating permit.



An Air Construction Permit (AC16-91684) was issued on January 23, 1985 by the FDEP Northeast District Office, Jacksonville, Florida, for the No. 2 incinerator. The maximum dry sludge processing rate for incinerator No. 2 was limited to 1.375 tons per hour. The particulate matter emissions were limited under the conditions of this permit to 1.79 pounds per hour and 7.84 tons per year. Although there was no limit placed on the annual hours of operation for this incinerator, there is a limit of 23,076.9 tons per year on the total allowable quantity of dry sludge that can be processed by both incinerators.

The total annual allowable quantity of dry sludge that can be processed by both incinerators (23,076.9 tons per year) multiplied by the NSPS particulate matter emission standard of 1.30 pounds per ton dry sludge processed provides the 14.99 tons of particulate matter per year emission limit. Thus, having the limit on the total quantity of dry sludge processed per year ensures that the annual particulate matter emissions from the two incinerators combined remains below the annual particulate matter nonattainment area RACT applicability level of 15 tons per year.

In the mid 1980s, compliance with the national ambient air quality standard for particulate matter was achieved in the Jacksonville area, and the particulate nonattainment area was redesignated as an air quality maintenance area. Although the nonattainment area new source review rules no longer apply, the particulate RACT rules remain in effect as part of the air quality maintenance plan for the area.

AIR OPERATING PERMIT CONDITIONS

Since the issuance of the 1985 Air Construction Permit for the No. 2 incinerator, there have been no amendments to that permit. However, several state Operating Permits have been issued for each incinerator.

Mr. C.H. Fancy, P.E.
July 10, 1997
Page 4

The current Air Operating Permit for the facility allows the No. 1 incinerator to process sludge at a rate of 2.6 tons per hour, and the No. 2 incinerator to process sludge at a rate of 2.0 tons per hour. It also restricts the hours of operation for each unit, with No. 1 incinerator limited to 5,411 hours per year, and No. 2 incinerator limited to 6,031 hours per year.



It appears that the restrictions on the hours of operation was included in the permit to offset the increase in maximum hourly sludge processing rates. For example, multiplying the maximum allowable sludge processing rate specified in the Air Construction Permit for the No. 2 incinerator (1.375 tons per hour) by the maximum unrestricted hours of operation (8,760 hours per year) times the NSPS particulate matter emission limit of 1.3 pounds per ton of dry sludge) shows that the maximum particulate matter emissions under these permit conditions would be 7.84 tons per year. Similarly, multiplying the increased allowable sludge processing rate (2.0 tons per hour) specified in the Air Operating Permit by the reduced allowable annual operating time (6,031 hours per year), times the NSPS particulate matter emission limit of 1.3 pounds per ton of dry sludge) results in the same maximum annual particulate matter emission rate of 7.84 tons per year.

PROPOSED PERMIT CHANGES

As demonstrated above, changes in the various operating parameters applicable to the two incinerators can be implemented in a manner that remains protective of the environment and results in no net increase in the facility's annual emissions limits. Moreover, it has been demonstrated that this can be achieved in a manner that does not require a physical change to the facility.

The WWT wishes to amend some of the federally enforceable permit conditions contained in the 1985 Air Construction Permit applicable to the incinerators. This would be accomplished either through an updated Air Construction Permit or a Federally Enforceable State Operating Permit (FESOP), in accordance with the method deemed most appropriate by the FDEP.

It is proposed that the approach to limiting both the annual and hourly particulate emissions be achieved through a combination of annual and hourly dry sludge processing limits, rather than by limiting the hours of operation. This would retain the level of protection provided by the current air construction permit, yet provide the operational flexibility needed by the facility to properly meet operation and maintenance needs.



It is proposed that this approach be implemented by retaining the current facility-wide annual limit on the quantity of dry sludge that may be processed (23,076.9 tons per year), and adding a facility-wide hourly limit of 3.83 tons per hour on the quantity of dry sludge that may be processed. This combination of limits will ensure that the maximum hourly particulate matter emissions from the facility would remain below the 5 pound per hour and 15 ton per year particulate matter nonattainment RACT exemption level, and result in no increase in annual facility-wide emissions. Based on these control parameters, it is proposed that there be no restriction on the hours of operation, since such a restriction would be unnecessary and redundant.

The 3.83 tons per hour sludge processing rate will allow either one of the incinerators to process sludge, on a short-term basis, at the maximum allowable hourly dry sludge processing rate for the facility, while the other incinerator is out of service for maintenance or repair, without increasing the annual or hourly emissions from the facility. This arrangement will enable the facility to prevent the accumulation of untreated sludge from occurring when one of the incinerators is out of service.

The particulate matter emissions from each of the incinerators will continue to be subject to the EPA NSPS limit of 1.30 pounds of particulate matter per ton of dry sludge processed. Similarly, the particulate matter emissions testing and other monitoring and reporting requirements as established by EPA's NSPS, Subpart O will remain in effect.

PSD RULE APPLICABILITY

In accordance with federal and state PSD review rules, a major modification to an existing major facility requires a PSD review. A major modification is defined as a physical change or a change in the method of

operation that would result in a significant net emissions increase of any pollutant subject to regulation under the Clean Air Act (CAA).

Based on our review of the 1985 Air Construction Permit for the No. 2 incinerator, there are no federally enforceable restrictions on the hours of operation, and the maximum annual sludge processing rate is limited to 23,076.9 dry tons per year. The proposed changes to the permits, which include the removal of the restriction on hours of operation in the state Operating Permit and the change in the short-term, pounds per hour sludge processing rate allowed by the Air Construction Permit, will not increase the maximum allowable annual production rate specified in the air construction permit or cause the facility to exceed the RACT exemption levels.

Due to the fact that the proposed permit changes will be accomplished without any physical change to the facility or a change in the method of operation, it is our opinion that the changes that JEA WWT proposes to make to some of the specific conditions in the Air Construction Permit do not require a PSD review.

CONCLUSION

Based on the facts presented above, we believe that the changes to the Air Permits for the No. 1 and No. 2 sludge incinerators at the Buckman Street Sewage Treatment Plant proposed to be made by the JEA WWT can be processed and implemented by the FDEP Northeast District office. Further, we believe that the proposed changes do not constitute a physical change to the facility or a change in the method of operation of the facility, and will therefore not require a PSD review.

In summary, the proposed changes will result in the following set of permit conditions:

- 23,076.9 tons dry sludge per year processing limit facility-wide;
- A maximum of 3.83 tons dry sludge processed per hour facility-wide (using any combination of the two incinerators); and



Mr. C.H. Fancy, P.E.

July 10, 1997

Page 7

- A maximum of 1.30 pounds of particulate matter emitted per ton of dry sludge processed by each incinerator;
- A maximum of 14.99 tons per year particulate matter emissions facility-wide;
- A maximum of 4.99 pounds per hour particulate matter emissions facility-wide;
- No limitation on hours of operation or total hours of operation facility-wide.



We request that you review the information contained in this letter and advise us in writing as to whether you concur with our conclusion regarding the nonapplicability of PSD review under the conditions described above. Should you conclude that the proposed permit changes do require a PSD review and issuance of a PSD permit, please provide us with a detailed description of your rule applicability analysis and rationale supporting your determination.

If you need any additional information to assist you in making your determination, please contact me in writing at our Tallahassee office.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen Smallwood", written over a grid background.

Stephen Smallwood, P.E.
Air Quality Services

SS/pjh/hda/ssm

c: David Kowalski, P.E. - Buckman Street STP
Elaina Modlin, P.E. - ERM, Boynton Beach
Charles A. Roberts - ERM, Boynton Beach

cc: S. Arif, BAR
P. Corner, OGC
Dural Co.
NED

May 30, 1996

Buckman
Air Permits

C. Facey

ERM-SOUTH, INC.

JUN - 3 1996

RECEIVED

Ron:

I have enclosed the oldest permits for Buckman's #1 and #2 incinerators and the Odor Control Systems 1 and 2.

I found and copied the construction permit (AC16-91684) for incinerator #2 but could only find and copy the application and operation permit (AO16-19434) for incinerator #1. It is possible that the first construction permit was processed and issued from Tallahassee DER back then. That may explain why we do not have a copy in our files.

I got Jerry Woosley, one of our original permitters, to help out with this and he agrees with this.

I hope this information will help.

Darrel Hall

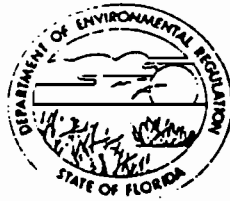


REGULATORY AND ENVIRONMENTAL
SERVICES DEPARTMENT
AIR QUALITY DIVISION

DARREL HALL
POLLUTION CONTROL SPECIALIST

TOWNCENTRE - SUITE 412
421 W. CHURCH STREET
JACKSONVILLE, FLORIDA 32202-4111

PHONE (904) 630-3484
FAX (904) 630-3638



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

APPLICANT: Mr. Joe H. Hyatt, P.E.
Deputy Director of Public Works
220 E. Bay Street.
Jacksonville, Florida 32202

PERMIT/CERTIFICATION
NO. AC16-28791

COUNTY: Duval

PROJECT: Odor control sys

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter #1 and #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:

Source: Odor Control Systems, No. 1 and No. 2

System #1 - treating 9700 CFM from the Influent Junction Box, Influent Wet Well and the Influent Pump Station Screen Room, with a Packed Tower Scrubber and 3 Carbon Adsorbers (plus one spare)

System #2 - treating 13,000 CFM from the Foul Air Systems from 4 Vacuum Filters and 6 Centrifuges, Sludge Mix/Blend Tanks, 2 Decant Tanks and 2 Future Decant Tanks, and 2 Storage Sludge Tanks, with a Packed Tower Scrubber followed by 4 Carbon Adsorbers (plus one spare)

In accordance with application received on March 10, 1980, with additional information received on April 30, 1980.

UTM: E - 7439.380

N - 3357.690

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

PERMIT NO.: AC16-28791
APPLICANT: Buckman Street Sewage Treatment Plant
Source: Odor Control Systems #1 and #2

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)

SPECIFIC CONDITIONS:

See page 3

PERMIT NO.: AC16-28791
APPLICANT: Buckman Street Sewage Treatment Plant
Source: Odor Control Systems #1 and #2

1. Supporting documents are retained in file of office to which they were submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:

- A. Permit Application
- B. Additional Information - received April 30, 1980.
- C. Plot Plans

2. Construction of this installation shall be completed by October 31, 1981. Application for Permit to Operate to be submitted by December 31, 1981.

3. Testing of emissions must be accomplished at $\pm 10\%$ of the planned operation rate stated in the permit. If not, the operation permit will be issued to allow the operation rate during the test.

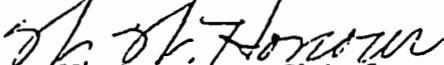
4. The Maximum Allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>Emission Rate</u>	<u>Maximum Allowable Emissions</u>
Objectionable Odors	17-2.05(4)	No objectionable odors allowed.


5. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.

Expiration Date/ March 31, 1982

Issued this 30th day of July, 19 80.


Walter W. Honour, Chief
Bio-Environmental Services
City of Jacksonville

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

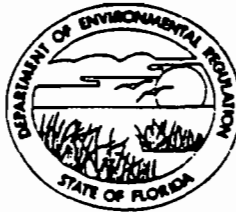

G. Doug Dutton, Subdistrict Manager

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

1185 E

NORTHEAST DISTRICT

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207
(904) 396-6959



Handwritten signatures:
Pace
Mehrtens
Worsley

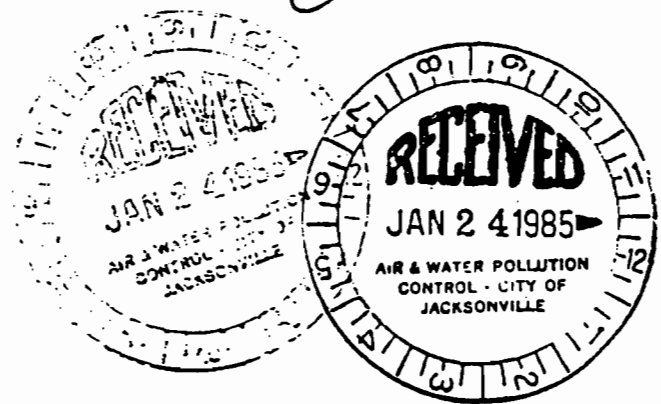
BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
G. DOUG DUTTON
DISTRICT MANAGER

January 23, 1985

Mr. Allan E. Williams
Deputy Director of Public Works
Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

Dear Mr. Williams:

Duval County - AP
Buckman Street STP
Sludge Incinerator No. 2



Attached is Permit No. AC16-91684. Should you object to the issuance of this permit or the specific conditions of the permit, you have a right to petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes.

The petition must be filed within fourteen (14) days from receipt of this letter. The petition must comply with the requirements of Section 17-103.155 and Rule 28-5.201, Florida Administrative Code, (copies attached) and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32301. Petitions which are not filed in accordance with the above provisions are subject to dismissal by the Department.

In the event a formal hearing is conducted pursuant to Section 120.57(1), all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel.

If an informal hearing is requested, the agency, in accordance with its rules of procedure, will provide affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer, written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes.

Sincerely,

Handwritten signature of Frank Watkins, Jr.

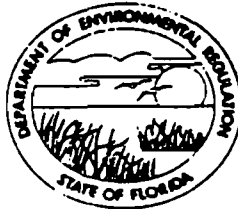
Frank Watkins, Jr., P.E.
District Engineer

FW:vk

Handwritten initials JB

cc: Jacksonville BES
Firmin W. Southwell, P.E.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



NORTHEAST DISTRICT

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

G. DOUG OUTTON
DISTRICT MANAGER

PERMITTEE:

Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

I.D. Number: 31-16-0166-05
Permit/Certification Number: AC16-91684
Date of Issue: January 23, 1985
Expiration Date: June 30, 1987
County: Duval
Latitude/Longitude: 30:21:04/81:37:51
Section/Township/Range:
Project: Sludge Incinerator No. 2
UTM E-7439.750 N-3357.800

This permit is issued under the provisions of Chapter(s) 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 drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of an eight hearth municipal sludge incinerator No. 2 fired by natural gas. No. 2 fuel oil is on standby. Particulate emissions shall be controlled by a scrubber system (SWEMCO Model No. SWHE-8.5) as follows:

- (A) Venturi throat impact scrubber.
- (B) Water contact pre-cooler scrubber.
- (C) Counter current sieve tray type diffuser impingement scrubber.

Located at 2221 Buckman Street, Jacksonville, Florida 32206.

Supporting documents are as follows:

- (1) Application received on August 23, 1984.
- (2) Additional information received on September 26, 1984, October 1, 1984, November 14, 1984, and November 21, 1984.
- (3) Public Notice published on November 28, 1984.
- (4) BESD letters dated September 19, 1984 and October 5, 1984.

PERMITTEE:

Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

31-16-0166-05
AC16-91684
January 23, 1985
June 30, 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 enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefor 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.
6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
 - a. Having access to and copying any records that must be kept under the conditions of the permit;
 - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:
 - a. a description of and cause of non-compliance; and

BEST AVAILABLE COPY

PERMITTEE:

Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

I.D. Number:

31-16-0166-05

Permit/Certification Number:

AC16-91684

Date of Issue:

January 23, 1985

Expiration Date:

June 30, 1987

b. the period of noncompliance, 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.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any 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)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - (X) 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.
 - 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.

Permittee: Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

I.D. Number: 31-16-0166-05
Permit/Certification Number: AC16-91684
Date of Issue: January 23, 1985
Expiration Date: June 30, 1987

SPECIFIC CONDITIONS:

1. The maximum allowable emission rate for each pollutant is as follows:

<u>POLLUTANT</u>	<u>EMISSION RATE</u>	<u>MAXIMUM ALLOWABLE EMISSION</u>
Particulates	17-2.660(2) FAC (40 CFR Part 60-Subpart O) 1.3 lbs/ton of dry sludge input	1.79 lbs/hr 7.84 T/yr
Visible Emissions	17-2.660 FAC-NSPS (40 CFR Part 60-Subpart O)	20% opacity continuous
Mercury	17-2.670 FAC-NESHAP (40 CFR Part 61-Subpart E)	**3200 grams/24 hrs
Objectionable Odors	17-2.620(2), FAC **Per Facility	None Allowed

2. Testing of emissions shall be accomplished at 90% to 100% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to that capacity until such time as an acceptable test is performed at 90% to 100% of permitted capacity. When operation is restricted to a lower capacity, because of testing at such a level, the Department/Bio-Environmental Services Division, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity (never to exceed design capacity).

3. The construction of this installation shall be completed by December 31, 1986 and the operation permit application is to be submitted by March 31, 1987:

4. Test the emissions for the following pollutant(s) within 60 days after start-up, notify Bio-Environmental Services Division (BESD) 14 days prior to testing. Submit a copy of the test report to BESD with the operating permit application.

Particulates
* Visible Emissions
* Mercury

*Simultaneous with the particulate test.

5. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.
6. Control equipment is to be provided with a method of access that is safe and reasonably accessible. Stack sampling ports and platforms are required.

Permittee: Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

I. D. Number:

Permit/Certification Number:

Date of Issue:

Expiration Date:

31-16-0166-05
AC16-91684
January 23, 1985
June 30, 1987

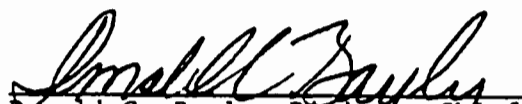
SPECIFIC CONDITIONS:

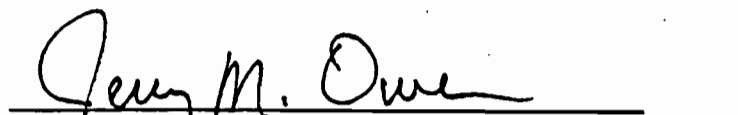
7. Operation is limited to 8760 hours per year.
8. The process weight is limited to a maximum of 1.375 tons per hour dry sludge.
9. Testing shall be in accordance with EPA Reference Method No. 5 for particulates. Minimum sampling times, rates, and determination of dry sludge charging rates shall be performed as described in 40 CFR 60.154.
10. Testing shall be in accordance with EPA Reference Method No. 9 for visible emissions.
11. Testing shall be in accordance with EPA Reference Method No. 101 A or 105 for mercury. Specific testing conditions as outlined in 40 CFR 61.53 and 61.54 shall be followed as described.
12. A sludge flow measuring device shall be installed, calibrated and maintained in accordance with procedures outlined in 40 CFR 60.153(a)(1).
13. Three (3) bag samples of discharge pollutants shall be obtained from the incinerator stack and each sample diluted with 3528 parts odor free air to one part discharge stack gas using the ASTM Syringe Dilution Method ASTM D 1391. Samples shall then be evaluated for the detection of any odors by qualified personnel. Note: Detection of any odors shall indicate test failure. BESD shall be notified 14 days prior to test date and the test report shall be submitted to BESD with the operation permit application.
14. The facility annual dry sludge input is limited to 23,076.9 tons. This is in accordance with 17-2.650(2)(b) 1. FAC.

Issued this 23 day of January, 1985

City of Jacksonville
Bio-Environmental Services Division

State of Florida
Department of Environmental Regulation


Donald C. Bayly, Division Chief


Jerry Owen, Acting Manager, Northeast District

5 Pages attached

Page 5 of 5

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER
SUBDISTRICT

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207



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Page 3
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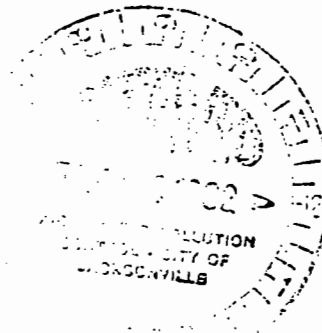
BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

February 22, 1982

Mr. Alan E. Williams, P.E.
Deputy Director
Water and Sewer Division
Department of Public Works
220 E. Bay Street
Jacksonville, Florida 32202



Dear Mr. Williams:

Duval County - AP
Buckman St. Sewage Treatment Plant
Sludge Incinerator - Permit A016-19434

Bio-Environmental Services has reviewed and recommended approval of modifications to the subject permit in relation to restricting maximum allowable emissions and operating hours and the Department of Environmental Regulation has subsequently approved such modifications. More specifically, Specific Condition No. 6 is modified to read as follows:

Specific Condition

6. Pollutant	Emission Rate 17-2.660(2)(a)	Maximum Allowable Emissions
Particulate	.02 gr/dscf corrected to 12% CO ₂	4.99 lbs/hr 14.99 T/yr
Visible Emissions	17-4.23	0% 20%, 3 minutes/hr

Operation is limited to 6012 hours per year

This letter shall be attached to and becomes part of the captioned permit.

Should the Public Works Department have any questions concerning this matter, please contact the Bio-Environmental Services Division at 633-3318.

Very truly yours,

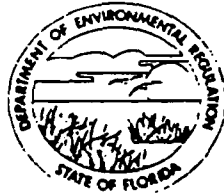
Doug Dutton, Subdistrict Manager
Department of Environmental Regulation

Donald C. Bayly, Assistant Chief
Bio-Environmental Services Division

DD/DCB/vj

Jacksonville BES

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207



BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

G. DOUG DUTTON
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER SUBDISTRICT

APPLICANT: City of Jacksonville
Buckman Street Sewage Treatment Plant
2221 Buckman Street
Jacksonville, Florida 32206

PERMIT/CERTIFICATION
NO. A016-19434

COUNTY: Duval

PROJECT: Sewage Sludge Disposal Incinerator

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17.2 & 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:

Source: Sewage Sludge Disposal Incinerator, 8,811 lb/hr dry weight, with Venturi Scrubber (Swemco)

In accordance with application dated April 9, 1979, with additional information received on May 14, 1979.

UTM: E - 7439.425

N - 3357.800

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

PERMIT NO.: A016-19434
APPLICANT: Buckman Street Sewage Treatment Plant
Source: Sewage Sludge Disposal Incinerator

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)

SPECIFIC CONDITIONS:

PERMIT NO.: A016-19434
APPLICANT: Buckman Street Sewage Treatment Plant
Source: Sewage Sludge Disposal Incinerator

1. Supporting documents are retained in file of office to which they were submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:

- a. Permit Application
- b. Stack Test
- c. page 15L-12, Contract Documents

2. Testing of emissions must be accomplished at $\pm 10\%$ of the rate stated in the permit.

3. Test the emissions for the following pollutant(s) at intervals indicated from the date of August 15, 1979 and submit a copy of the test report to the Jacksonville Bio-Environmental Services Division and a summary to this office within 15 days after completion of the testing

Particulate Emissions - Yearly

4. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.

5. Any revision(s) to a permit (and application) must be submitted and approved prior to implementation.

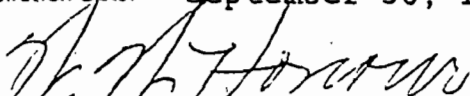
6. The maximum allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>Emission Rate</u>	<u>Maximum Allowable Emission</u>
Particulates	0.02 gr/SCF, corrected to 12% CO ₂	5.10 lb/hr
Opacity	0%	20%, 3 min/hr maximum

7. Submit a test of the visible emissions by December 14, 1979.

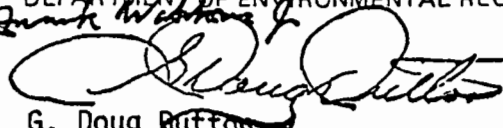
Expiration Date: September 30, 1984

Issued this 25th day of October, 19 79.

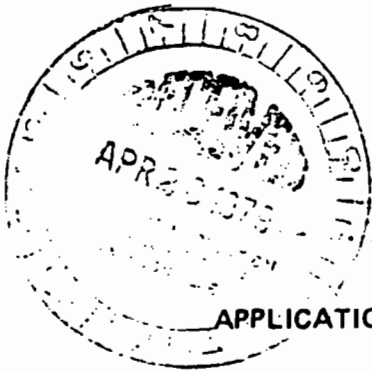

Walter W. Honour, Chief
Bio-Environmental Services Division
City of Jacksonville

DER FORM 17-1.122(63) Page 3 of 3

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION


G. Doug Button

Subdistrict Manager



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

Source Type: Air Pollution Incinerator
 Application Type: Construction Operation Modification Renewal of DER Permit No. SC16-2183
 Company Name: City of Jacksonville County: Duval

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): _____

Source Location: Street: 2221 Buckman Street City: Jacksonville
 UTM: East 439750 893 North 3357800
 Latitude: 3 0 . 2 1 . 1 0 "N. Longitude: 8 1 . 3 7 . 4 6 "W.

Appl. Name and Title: Joe H. Hyatt, P.E., Deputy Director of Public Works
 Appl. Address: 220 East Bay Street, Jacksonville, Florida 32202

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative of* City of Jacksonville, Florida

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 provisions 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 nontransferable and I will promptly notify the Department upon sale or legal transfer of the permitted establishment.

Joe H. Hyatt, P.E.

Name of Person Signing (please Type or Print)

Joe H. Hyatt Deputy Director of Public Works

Signature of the Owner or Authorized Representative and Title

Date: 4-9-79 Telephone No.: (904) 633-2920

*Attach a letter of authorization.

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that 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 the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signature: Joe H. Hyatt

Name: Joe H. Hyatt, P.E.
 (Please Type)

Company Name: City of Jacksonville

Florida Registration Number: 4270

(Affix Seal)

Mailing Address: 220 East Bay Street

Room 1207, City Hall

Jacksonville, Florida 32202

Telephone No.: (904) 633-2920

Date: April 9, 1979

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 sludge disposal facilities consists of centrifuges, heat treatment facilities, vacuum filters and incinerators. The facilities are located at the Buckman Sewage Treatment Plant and dispose of sludge from Buckman, Sewer District II and Southwest District Sewage Treatment Plants. The plans and specifications for the purchase and installation of heat treatment and incineration equipment have been approved by the Jacksonville Department of Health, Welfare and Bio-Environmental Services, Florida Department of Pollution Control and United States Environmental Protection Agency.

B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Start of Construction: April 1, 1974 Completion of Construction: July 18, 1976

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

Construction cost of Incinerator System is a lump sum of \$1,300,000 (does not include building).

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

Construction Permit No. SC16-2183 dated 3-15-76 to 1-31-77 extended to 4-30-77, 10-31-77 and 8-30-78; Construction Permit No. SC-692 issued 12-20-72 and expiring 4-1-75.

E. Is the emission point considered to be a New* or Existing* source, as defined in Chapter 17-2.02(5) & (6), Florida Administrative Code? X New Existing

F. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes X No

G. Normal Equipment Operating Time: hrs/day: 24 ; days/wk: 5-7 ; wks/yr: 52 ; if seasonal, describe:

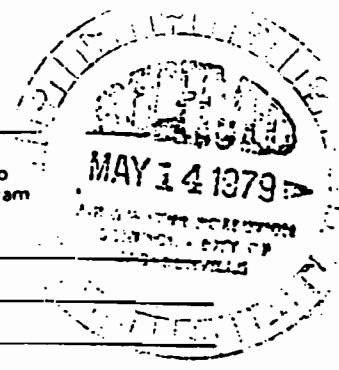
*Note

New Source: any source which came into existence, began operation or construction, or received a permit for the latter on or after January 18, 1972.

*Existing Source: any source in existence, operating or under construction (or with a permit to construct) prior to January 18, 1972.

Best Available Copy

(other than incinerators)



A. Raw Materials and Chemicals Used in Your Process:

Description	Utilization Rate lbs./hr.	Relate to Flow Diagram
N/A		

B. Process Rate:

- Total Process Input Rate (lbs./hr.): 25,174 lbs/hr. maximum wet solids at 35% solids
- Product Weight (lbs/hr.): 8,811 lbs/hr. maximum dry solids

C. Airborne Contaminants Discharged:

Name of Contaminant	Actual Discharge*		Allowed Discharge Rate Per Ch. 17-2, F.A.C.** (see below)	Allowable Discharge*** (lbs./hr.)	Relate to Flow Diagram
	Max. T/yr x1000	Avg/yr.			
Particulates	16.7	2.0	corrected for 50% excess O₂ 0.08 grains/DSCR		19.57 t/yr
CO ₂	43,308	6,113	---	---	
N ₂	342,248	83,340	---	---	
O ₂	64,244	12,429	---	---	
Hg	0.036	.009	3200 gm/day	0.294 (0.917 T/yr)	

Particulates 40CFR Part 60 - NSPS 5.73 lb/Rc - MAX. - confirmed w/ DeHyatt in 10/5/79 telecon. EAB
1.3 lb/T - dry sludge

D. Control Devices:

Name and Type (Model and Serial No.)	Contaminant	Efficiency†	Range of Particles Size Collected (in microns)	Basis for Efficiency††
Venturi Scrubber		99	0-25	

* Estimate only if this is an application to construct.

** Specify units in accordance with emission standards prescribed within Section 17-2.04, F.A.C. (e.g. Section 17-2.04(6)(a)1.a. specifies that new fossil fuel steam generators are allowed to emit particulate matter at a rate of 0.1 lbs. per million BTU heat input computed as a maximum 2-hour average.)

*** Using above example for a source with 260 million BTU per hour heat input: $\frac{0.1 \text{ lbs}}{\text{MMBTU}} \times \frac{260 \text{ MMBTU}}{\text{hr.}} = 26 \text{ lbs./hr.}$

† See Supplemental Requirements, page 5, number 2.

†† Indicate whether the efficiency value is based upon performance testing of the device or design data.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES

(other than incinerators)

A. Raw Materials and Chemicals Used in Your Process:

Description	Utilization Rate lbs./hr.	Relate to Flow Diagram
N/A		

B. Process Rate:

- Total Process Input Rate (lbs./hr.): 25,174 lbs/hr. maximum wet solids at 35% solids
- Product Weight (lbs/hr): 8,811 lbs.hr. maximum dry solids

C. Airborne Contaminants Discharged:

Name of Contaminant	Actual Discharge*		Allowed Discharge Rate Per Ch. 17-2, F.A.C.**	Allowable Discharge*** (lbs./hr.)	Relate to Flow Diagram
	Max. T/yr XDSDDC	Avg T/yr.			
Particulates	16.7	2.0	0.1 lbs/MMBTU	8.8 (27 T/yr)	
Sulfur Oxides	0	0	0.8 lbs/MMBTU	70.5 (219 T/yr)	
CO ₂	43,308	6,113	—	—	
N ₂	342,248	83,340	—	—	
O ₂	64,244	12,429	—	—	
Hg	0.036	.009	3200 gm/day	0.294 (0.917 T/yr)	

D. Control Devices:

Name and Type (Model and Serial No.)	Contaminant	Efficiency†	Range of Particles Size Collected (in microns)	Basis for Efficiency††
Venturi Scrubber		99	0-25	

* Estimate only if this is an application to construct.

** Specify units in accordance with emission standards prescribed within Section 17-2.04, F.A.C. (e.g. Section 17-2.04(6)(e)1.a. specifies that new fossil fuel steam generators are allowed to emit particulate matter at a rate of 0.1 lbs. per million BTU heat input computed as a maximum 2-hour average.)

*** Using above example for a source with 260 million BTU per hour heat input: $0.1 \text{ lbs} \times \frac{260 \text{ MMBTU}}{\text{MMBTU hr}} = 26 \text{ lbs./hr.}$

† See Supplemental Requirements, page 5, number 2.

†† Indicate whether the efficiency value is based upon performance testing of the device or design data.

E. Fuels:

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg./hr.	Max./hr.	
Natural Gas	.002055230	.030000	30.00
Oil (alternate)	102 lbs/hour	1493 lbs/hour	30.00
Primary Fuel=Sludge	2202	8811 lbs/hour	88.11

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

Fuel Analysis: Sludge Natural Gas #2 Fuel Oil

Percent Sulfur: 0.6% 0 1% Percent Ash: 0

Density: 9 (wet) .0572 #/CuF 6.87 lb./gal.

Heat Capacity: 10,000 1000 BTU 20,017 BTU/lb. 138,000 (oil) BTU/gal.

Other Fuel Contaminants: _____

F. If applicable, indicate the percent of fuel used for space heating: N/A Annual Average: _____ Maximum: _____

G. Indicate liquid or solid wastes generated and method of disposal:
Sludge Ash - Land Disposal (New Berlin Road)
Sludge Cake - 46% solids (New Berlin Road) alternate

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

Stack Height: 75 ft. Stack Diameter: 4.5 ft.

Gas Flow Rate: 34,421 (air) ACFM Gas Exit Temperature: 120 °F

Water Vapor Content: 0.057 (volume fraction) %
0.13

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs./Hr. Incinerated							25,174 wet

Description of Waste: Sewage Sludge

Total Weight Incinerated (lbs./hr.): 25,174 (sludge cake) Design Capacity (lbs./hr.): 25,174 (Sludge cake)

Approximate Number of Hours of Operation per Day: 24 days/week: 5 to 7

Manufacturer: EIMCO - BSP Division, Envirotech Corporation

Date Constructed: July 18, 1976 Model No.: 25'-9" x 8 hearth

	Volume (ft.) ³	Heat Release (BTU/hr.)	Fuel		Temp. (°F)
			Type	BTU/hr.	
Primary Chamber	12,007	70,000,000	NG	2,055,230	1250
Secondary Chamber	N/A	N/A	N/A	N/A	N/A

Stack Height: 75 ft. Stack Diameter: 54 inch Stack Temp.: 120 °F

Gas Flow Rate: 34,421 (air)ACFM 28,074⁺ DSCFM*
+ corrected to 12% CO₂ as per 10/12/79 telecon w/Staff. EPB

*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): Venturi Throat

Brief Description of Operating Characteristics of Control Device: The control device is a Venturi Scrubber, which consists of: (1) precooler, (2) venturi throat and (3) impingement scrubber. The precooler cools the gas down to approximately adiabatic saturation temperature. The venturi throat removes materials suspended in the gas stream. The impingement scrubber subcools the gas to prevent plume. Upstream of the venturi scrubber is an emergency by-pass which is used only to prevent buildup of pressure in the furnace when the induced draft fan breaks down.

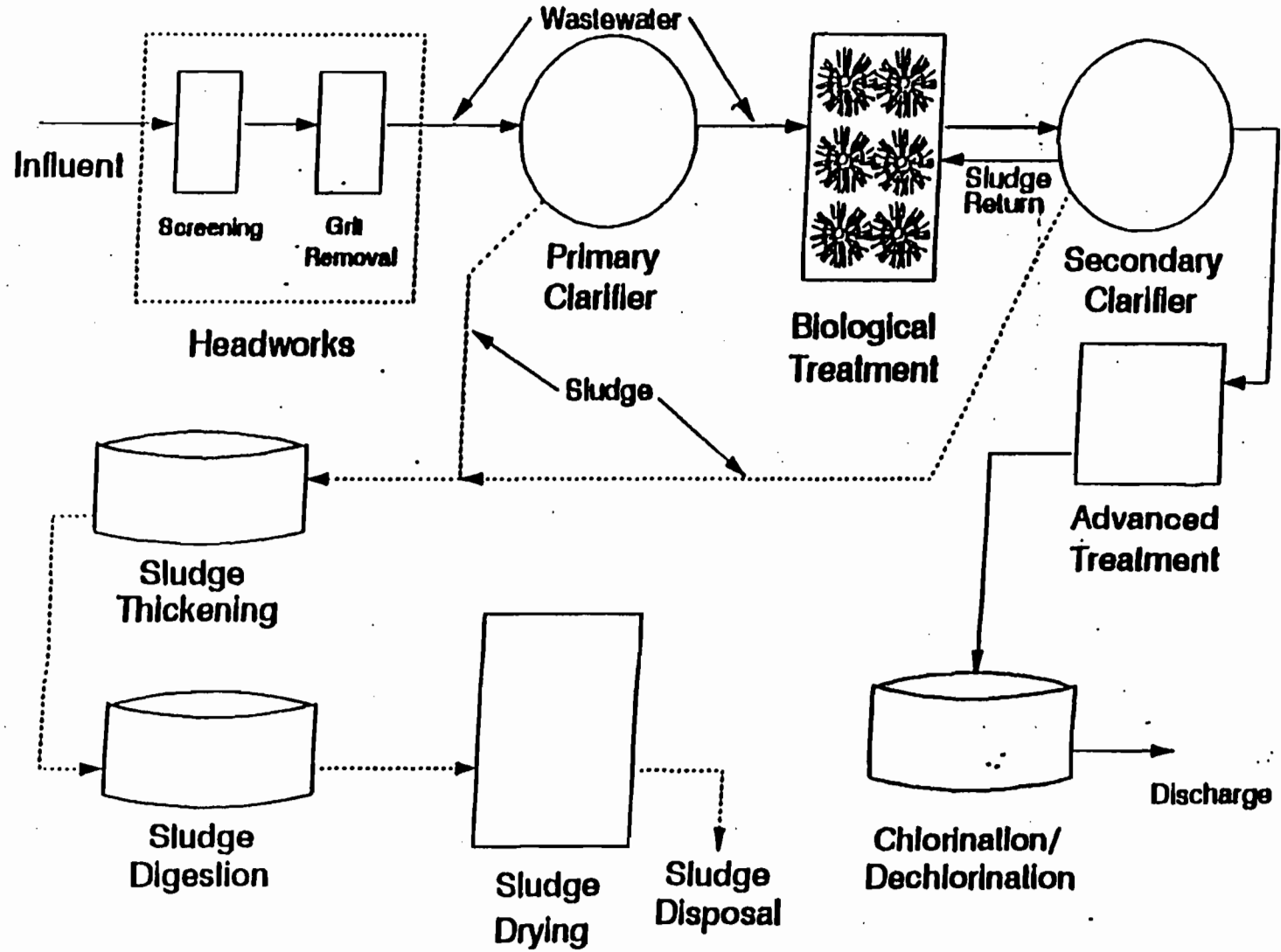
Ultimate Disposal of Any Effluent Other Than That Emitted From the Stack (scrubber water, ash, etc.):
Discharged to pre-aeration basins. Ash to sanitary landfill.

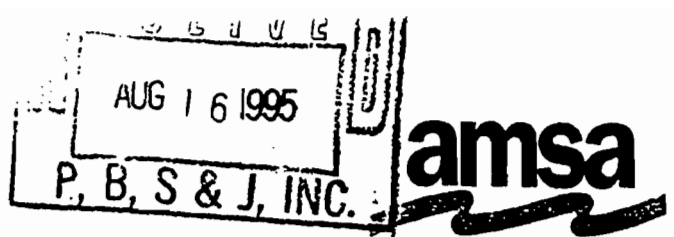
SECTION V: SUPPLEMENTAL REQUIREMENTS

Please Provide the Following Supplements Required For All Pollution Sources:

1. Total process input rate and product weight - show derivation.
2. Efficiency estimation of control device(s) - show derivation. Include pertinent test and/or design data.
3. An 8" 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.
4. An 8" x 11" plot plan of facility showing the exact location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
5. An 8" x 11" plot plan showing the exact 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 USGS topographic map.)
6. Description and sketch of storm water control measures taken both during and after construction.
7. An application fee of \$20.00, unless exempted by Chapter 17.4.05(3), FAC, made payable to the Department of Environmental Regulation.
8. With construction permit application, include design details for control device(s). Example: for baghouse, include cloth to air ratio; for scrubber, include cross-sectional sketch; etc.
9. Certification by the P.E. with the operation permit application that the source was constructed as shown in the construction permit application.

GENERAL SCHEMATIC FOR A POTW





Regulatory

A L E R T

To: Members & Subscribers
From: National Office
Date: August 14, 1995
Subject: PRESUMPTIVE MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)
FOR PUBLICLY OWNED TREATMENT WORKS (POTWS)
Reference: RA 95-21

The Environmental Protection Agency (EPA) has finalized the presumptive MACT guidance document for POTWs (attached). The document is written in outline form with little narrative. EPA will not be producing a more formal report on the presumptive MACT because of resource limitations.

EPA began the process of developing the presumptive MACT document in the fall of 1994. The Agency recognized at that time that it would be impossible to meet the deadline in the Clean Air Act under Section 112(e)(5) which required a national MACT standard for POTWs to be promulgated by November 15, 1995. The Clean Air Act requires that major sources of 189 hazardous air pollutants (HAPs), undergoing significant modification or expansion, comply with MACT standards on a case-by-case basis when no national MACT has been promulgated. Since such a case-by-case determination would have to be done by the states, the EPA decided that guidance in the form of a presumptive MACT would be needed until such time as national MACT standards are in place.

The presumptive MACT guidance is intended to be a simple screening procedure by which the states could determine whether the air emissions from wastewater treatment processes at a POTW exceed the major source definition in the Clean Air Act (10 tons per year of a single HAP, or 25 tons per year of all HAPs). The EPA presumptive MACT guidance utilizes three criteria for the screening procedure. Those POTWs which meet any two of the following conditions are presumed to be major sources of HAPs from wastewater treatment processes:

1. The influent dry weather flow is greater than 50 million gallons per day (mgd).
2. The influent concentration of volatile HAPs is greater than 5 parts per million by weight on an annual average basis.
3. The percentage of industrial contribution to the POTW is greater than 30 percent.

**PRESUMPTIVE MACT
FOR PUBLICLY OWNED TREATMENT WORKS
(POTW)**

**EMISSION STANDARDS DIVISION
OFFICE OF AIR QUALITY PLANNING AND STANDARDS
U.S. ENVIRONMENTAL PROTECTION AGENCY**

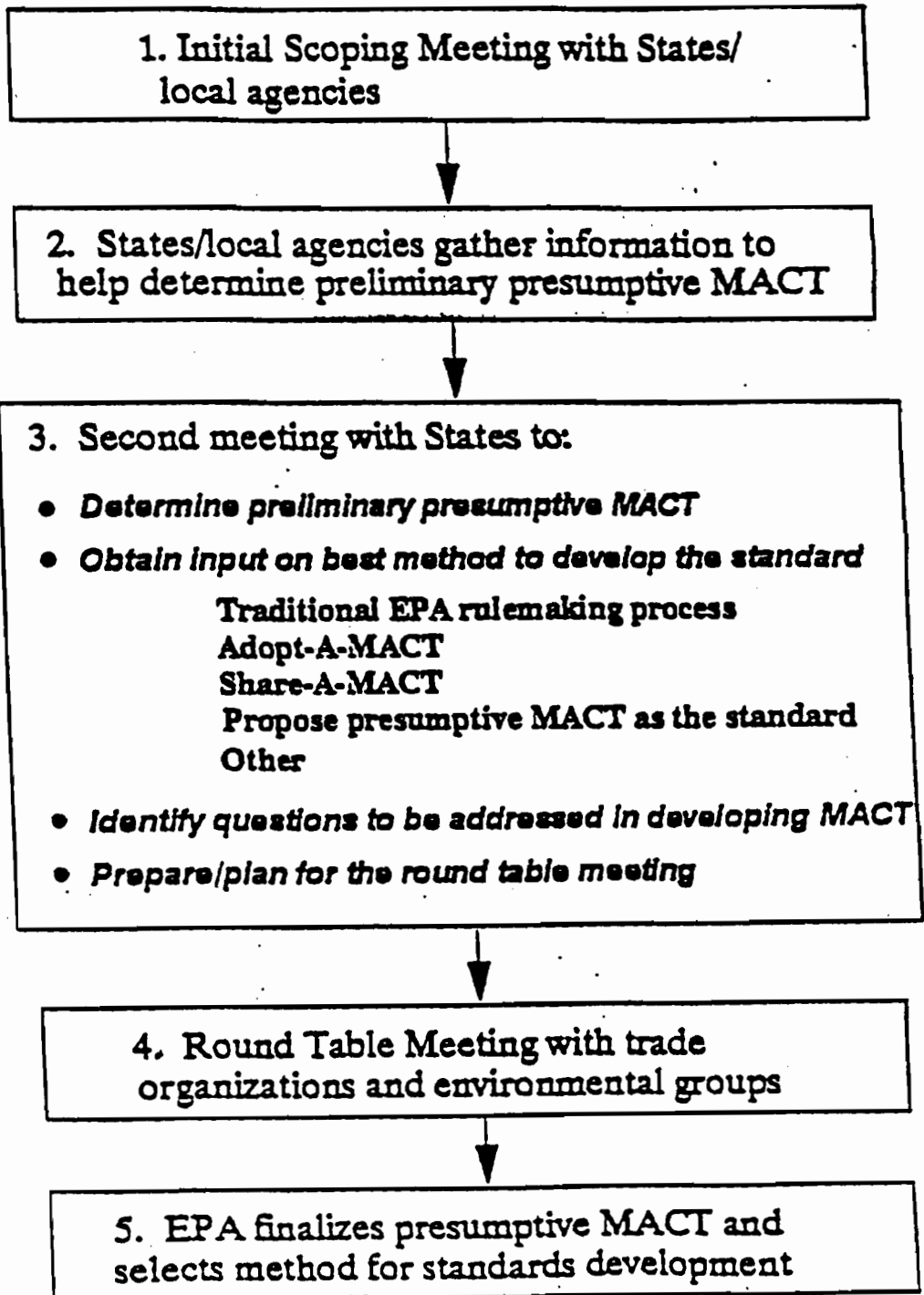
**RESEARCH TRIANGLE PARK,
NORTH CAROLINA**

JUNE 8, 1995

OVERVIEW OF PRESENTATION

- Definition of Presumptive MACT
- The Presumptive MACT Process
- Statutory Requirements
- Profile of the Industry
- POTW HAP Emission Points
- Pollutants of Concern
- Information and Data Collection
- Model POTW and Wastestreams
- Control Options Identified for POTW
- Current Industry Practices
- Three Key Questions (and options):
 - Which facilities would be affected?
 - Which facilities would have to control?
 - What controls would be required?
- Team Recommendations for Presumptive MACT
- Method 305
- Issues for Consideration During MACT Standard Development

THE PRESUMPTIVE MACT PROCESS



INDUSTRY PROFILE*

- POTW are publicly-owned facilities that receive and treat sewage and/or wastewater from residences, commercial activities, and industries
- Approximately 15,600 POTW nationwide
- 29.5 billion gallons of wastewater treated daily
- Range in size from <0.1 million gallons per day (MGD) to >500 MGD
- The majority of facilities (~80 percent) are 1 MGD or less
- Some facilities primarily treat wastewater from industrial users

** This data comes from the 1992 Needs Survey Report to Congress - Assessment of Needed Publicly Owned Wastewater Treatment Facilities in the United States.*