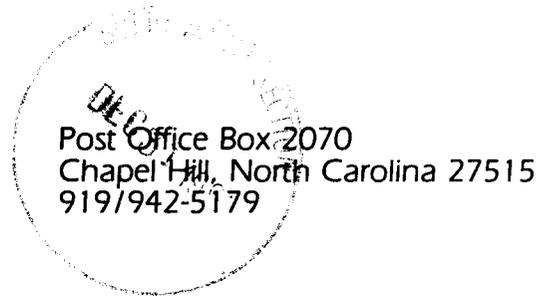


① Alamance County

1991

01-02

01021991



*Bail 01-02
Wahelo. Corresp.*

December 20, 1991

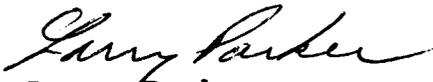
Solid Waste Section
NCDEHNR
P. O. Box 27687
Raleigh, NC 27611-7687

Re: Solid Waste Permit No. 01-02-I

Dear Sir:

The purpose of this letter is to give notice that ownership of the Graham incineration facility operated under Solid Waste Permit No. 01-02-I transferred to BFI Medical Waste Systems (SOUTHEAST), Inc. effective December 12, 1991.

Sincerely,


Larry Parker
President

Sherrie

2



RESEARCH & ANALYTICAL LABORATORIES, INC.

Analytical/Process Consultations



1 October 1991

Browning-Ferris Industries, Inc.
Medical Waste Systems
P.O. Box 310
Haw River, North Carolina 27258

Attention: Mr. Edward J. Haas

Dear Mr. Haas:

Enclosed is one (1) copy of the Medical Waste Incinerator Ash TCLP analysis for samples collected on 31 August 1991.

If you should have any questions concerning this report please feel free to contact me at any time.

Sincerely,

RESEARCH & ANALYTICAL LABORATORIES, INC.

James M. Cheshire
James M. Cheshire
President

JMC/jf

enclosure



RESEARCH & ANALYTICAL LABORATORIES, INC.

Analytical/Process Consultations

TCLP Analysis of Incinerator Ash for Browning-Ferris Industries, Inc. Medical Waste Systems, August 1991 (Haw River Facility)

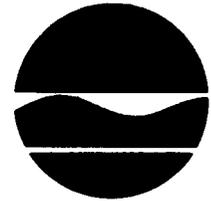
Sample Identification	Sample Number	Sample Date	Sample Matrix	EPA HW Number	Contaminant	Results (mg/l)	Characteristic Level(mg/l)	EPA Method
Incinerator Ash	116169	8/31/91	Solid	D-004	Arsenic	<0.010	5.0	7060
"	"	"	"	D-005	Barium	7.0	100.0	6010
"	"	"	"	D-018	Benzene	<0.010	0.50	8240
"	"	"	"	D-006	Cadmium	<0.010	1.0	6010
"	"	"	"	D-019	Carbon Tetrachloride	<0.010	0.50	8240
"	"	"	"	D-020	Chlordane	<0.01	0.030	608
"	"	"	"	D-021	Chlorobenzene	<0.010	100.0	8240
"	"	"	"	D-022	Chloroform	<0.100	6.0	8240
"	"	"	"	D-077	Chromium	<0.020	5.0	6010
"	"	"	"	D-023	O-Cresol	<20	200.0	8270
"	"	"	"	D-024	M-Cresol	<20	200.0	8270
"	"	"	"	D-025	p-Cresol	<20	200.0	8270
"	"	"	"	D-026	Cresol	*	200.0	8270
"	"	"	"	D-016	2,4-D	<1.0	10.0	8150
"	"	"	"	D-027	1,4-Dichlorobenzene	<0.75	7.50	8270
"	"	"	"	D-028	1,2-Dichloroethane	<0.010	0.50	8240
"	"	"	"	D-029	1,1-Dichloroethylene	<0.010	0.70	8240
"	"	"	"	D-030	2,4-Dinitrotoluene	<0.02	0.130	8270
"	"	"	"	D-012	Endrin	<0.002	0.020	608
"	"	"	"	D-031	Heptachlor	<0.005	0.008	608
"	"	"	"	D-032	Hexachlorobenzene	<0.02	0.130	8270
"	"	"	"	D-033	Hexachlorobutadiene	<0.05	0.50	8270
"	"	"	"	D-034	Hexachloroethane	<0.30	3.0	8270
"	"	"	"	D-008	Lead	<0.10	5.0	7420
"	"	"	"	D-013	Lindane	<0.04	0.4	608
"	"	"	"	D-009	Mercury	<0.0020	0.2	7470
"	"	"	"	D-014	Methoxychlor	<1.0	10.0	8150
"	"	"	"	D-035	Methyl Ethyl Ketone	<0.010	200.0	8240
"	"	"	"	D-036	Nitrobenzene	<0.20	2.0	8270
"	"	"	"	D-037	Pentachlorophenol	<10	100.0	8270
"	"	"	"	D-038	Pyridine	<0.500	5.0	8240
"	"	"	"	D-010	Selenium	<0.0050	1.0	7740
"	"	"	"	D-011	Silver	<0.010	5.0	7760
"	"	"	"	D-039	Tetrachloroethylene	<0.010	0.7	8240
"	"	"	"	D-015	Toxaphene	<0.05	0.5	8150
"	"	"	"	D-040	Trichloroethylene	<0.010	0.5	8240
"	"	"	"	D-041	2,4,5-Trichlorophenol	<40	400.0	8270
"	"	"	"	D-042	2,4,6-Trichlorophenol	<0.20	2.0	8270
"	"	"	"	D-017	2,4,5-TP (Silvex)	<0.10	1.0	8270
"	"	"	"	D-043	Vinyl Chloride	<0.010	0.2	8240
"	"	"	"	D-003	Cyanide(Reactivity)	0.381(mg/kg)		9010
"	"	"	"	D-003	Sulfide(Reactivity)	<0.388(mg/kg)		9030
"	"	"	"	D-002	pH (Corrosivity)	8 2 Std. Units		9045
"	"	"	"	D-001	Flash Point(Ignitability)	>140°F		1010
"	"	"	"		Paint Filter Test	No free liquid		
"	"	"	"		TOX	8.7 (mg/kg)		

*If M-, O-, and p-Cresol cannot be differentiated, than the total Cresol concentration is used.

< = less than or below detection limit

TOX = Total Organic Halides

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



3

Thomas C. Jorling
Commissioner

August 1, 1991

Ms. Dee Eggers
State of North Carolina
Department of Environmental, Health and
Natural Resources
Division of Solid Waste Management
P.O. Box 27687
Raleigh, NC 27611-7687

Dear Ms. Eggers:

I am writing to confirm a telephone conversation a member of my staff had with you on July 31, 1991. During this conversation you stated that the facility listed below, which is an incinerator, is an acceptable destination facility for both treated and untreated regulated medical waste.

Browning-Ferris Industries (Southeast), Inc.
1168 Porter Avenue
Haw River, NC 27258

The individual who has applied to transport regulated medical waste into your state is Browning Ferris Industries of NY, Inc., 136 Sicker Road, Latham, NY 12110.

If the aforementioned situation changes in the future, please contact me at (518) 457-0537.

Sincerely yours,

Richard G. Torrey
Chief, Medical Waste Section
Program of Bureau and Technical Support
Division of Hazardous Substances
Regulation

cc: N. Drapeau

DOCUMENTATION FORM

OFFICE CORRESPONDENCE

TELEPHONE LOG/CONVERSATION

✓ CONFERENCE NOTES

MEMORANDUM

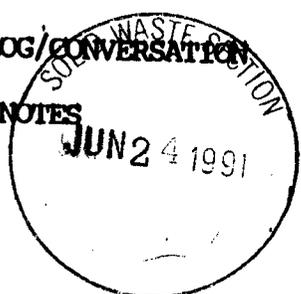
COMPLAINT INVESTIGATION

INVESTIGATION FOLLOW-UP

✓ SITE VISIT/ASSESSMENT

✓ PERSONAL MEETING

OTHER



TO: Files

FROM: J. Rodgers, Waste Mgmt. Specialist
Solid Waste Section

SUBJECT: BFI/TRS Medical Waste Incinerator

1168 Porter Ave.
Haw River, NC 27258

Phone: 919/518-8900

Re: Initial "walk-through" of facility with Ed Haas, District Mgr. - BFI
Present: Sherril Hoyt, Suzanne Molloy, Env. Engrs., Permitting Section DEHNR-DSWM

Met with Mr. Haas for purpose of familiarization with facility and general initial "walk-through" of facility prior to permitting of BFI as operator.

History -

Facility was originally owned/developed by Thermal Reduction Systems (TRS) of Chapel Hill, NC. Mr. Larry Parker - principal.

TRS has been permitted already as operator by DEM-AQS (Air Quality Section) and DEHNR-DSWM. Currently, ownership/operations are in process of being transferred to: BFI-Medical Waste Systems, and BFI is seeking and in process of obtaining permits from DEM-AQS and DEHNR-DSWM with Sherril Hoyt reviewing/processing application for the latter. As of today, BFI, technically, is in role of contract operator for TRS as procedures for transfer of ownership/operations take place. The "Notice of Opportunity for Public Comment" by publication (i.e. Burlington Times-News) has already been initiated as of June 17, 1991 as required by DEM-AQS for a 15 day comment period (copy attached). DEM-AQS proposes to issue an Air Permit provided there is no request or need for a public hearing. Permitting by DEHNR-DSWM should coincide with DEM-AQS permitting activity and BFI-Medical Waste Systems, most likely, will have both permits issued no later than July 10, 1991. TRS was never operational at this site. TRS was permitted by DEHNR-DSWM, designated 01-02.

Facility Location -

Facility address is: 1168 Porter Avenue, Haw River, NC 27258

(MORE)

DATE 6/18/91

DOCUMENTATION FORM

OFFICE CORRESPONDENCE
 TELEPHONE LOG/CONVERSATION
 CONFERENCE NOTES
 MEMORANDUM
 COMPLAINT INVESTIGATION
 INVESTIGATION FOLLOW-UP
 SITE VISIT/ASSESSMENT
 PERSONAL MEETING
 OTHER _____

TO: Files FROM: J. Rodgers, Waste Mgmt. Specialist
Solid Waste Section

SUBJECT: BFI/TRS Med. Waste Incinerator

Re:

Physical location: Porter Avenue off Service Road paralleling I-40/I-85
approx. 1000 yds. SE of Exit 150, Alamance County, NC

Description -

The building, an all-weather, steel-constructed on concrete, houses 2 gas-fired dual chambered incinerators with emission scrubbers for air emission integrity, and fully automated conveyor/ram feeds with charging capacity of 1911 lbs/hour. Also housed in the building is a 2500 ft² cold storage room with ambient temperature maintained at 38° F. Shower/changing facilities for employees is also provided with complete protective clothing and gear utilized. Administrative offices/facilities are adjacent to the plant. Primary first aid supplies/equipment is housed here also.

Operations -

Seven days per week, 24 hours per day, load every 6 min. at full capacity. Facility initially will utilize one incinerator (Unit 1).

Estimate that 40-60 yds³ of ash per week will be produced. Ash goes into 20 yd³ roll-offs, which when filled are covered and transported via truck to the disposal facility. Medical waste is packaged per standards (i.e. sealed poly bag within sturdy cardboard box) upon arrival or if not, refused.

Incinerator capability - (based on "trial run" 6/14/91)

Primary chamber - "oxygen starved," self-sustaining, not manually charged (MORE)

DATE 6/18/91

DOCUMENTATION FORM

 OFFICE CORRESPONDENCE COMPLAINT INVESTIGATION TELEPHONE LOG/CONVERSATION INVESTIGATION FOLLOW-UP CONFERENCE NOTES SITE VISIT/ASSESSMENT MEMORANDUM PERSONAL MEETING OTHER _____TO: FilesFROM: J. Rodgers, Waste Mgmt. Specialist
Solid Waste SectionSUBJECT: BFI/TRS Med. Waste Incinerator

Re:

(i.e. gas-fed) for burn, 1500° F

Secondary chamber - 1850-2000° F, "oxygen rich", 2.25 sec. burn retention
after gas charge

24 hour graphs/charts utilized to ascertain incineration time/temp.
integrity.

At full capacity, can be loaded every 6 min., 170-200 lbs. per load.
(Average box weight - 23 lbs.)

Medical waste comes from customer base in NC/SC. Back up incineration
facilities are in Georgia and Florida, if need arises. Company can re-route
waste to those facilities. Reciprocal agreement exists if they need back-up incineration also.

Cleaning / Sanitization -

Each trailer is cleaned and sanitized after unloading. Saniquot is sanitizer
that will be utilized.

Plant will be cleaned and sanitized on regular schedule also.

Cleaning and sanitizing water is self-contained and recycled.

Storage -

Facility has 1.5 days cold storage capacity based on 6 trucks / day
waste volume.

(MORE)

DATE 6/18/91

DOCUMENTATION FORM

OFFICE CORRESPONDENCE

COMPLAINT INVESTIGATION

TELEPHONE LOG/CONVERSATION

INVESTIGATION FOLLOW-UP

✓ CONFERENCE NOTES

✓ SITE VISIT/ASSESSMENT

MEMORANDUM

✓ PERSONAL MEETING

OTHER

TO: Files

FROM: J. Rodgers, Waste Mgmt. Specialist
Solid Waste Section

SUBJECT: BEI/TRS Med. Waste Incinerator

Re:

Comments -

This appears to be a well-constructed facility.

Permit conditions by DEHNR - DSWM should be of a nature to adequately address all aspects of this type facility and its operation. Safety, maintenance, record-keeping, and operational logistics should be covered clearly and completely. Regulated medical waste management (per Sheri Hoyt's letter of 6/10/91 to Larry Holloway) should be adequately addressed.

Disposal of Ash -

Tentative contractual arrangements have been made and are being processed for a final working disposition with Waste Management of North America - Piedmont Landfill, Kernersville, NC for the disposal of the ash produced at this facility. Ash management (per Sheri Hoyt's letter of 6/10/91 to Larry Holloway) should be adequately addressed.

cc: Sheri Hoyt
Julian Foscoe
File

June 14, 1991

Dr. David J. Henderson
Carolina Pediatrics & Allergy
of Rockingham Co., P.A.
Post Office Box 2299
601 W. Harrison Street
Reidsville, North Carolina 27320

Dear Dr. Henderson:

Thank you for your letter regarding the proposed Alamance County Landfill site near the Haw River. As you are probably aware the site selection process for the Alamance County Landfill has been a lengthy and at times difficult task.

The county has aggressively tried to lengthen the life of the current landfill by applying waste reduction and recycling practices. Your suggestion regarding digging up the current landfill is one that is currently being researched. It is a very complex undertaking and requires consideration of environmental and public health impacts as well as the marketability of the recovered materials.

One of my staff has contacted Procter and Gamble at the phone number you listed and though they are very helpful regarding composting they are not interested at this time in funding local projects of this type.

Be assured that through our permitting process the landfill that is designed for Alamance County to handle waste for the county will be protective of the public health and environment. I encourage you

to be active in environmental issues, especially waste reduction and recycling. There is much that can be done both in Alamance County and in your town¹ Reidsville.

Sincerely,

James G. Martin

JGM:WWCjr.

CC: William L. Meyer, Director
Division of Solid Waste Management

William L. Meyer WLM
Date 6/2/91



Permit
01-02
Alamance Co. 6

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

June 10, 1991

Mr. Larry L. Holloway
Vice President
BFI Medical Waste Systems (Southeast), Inc.
8607 Roberts Drive
Suite 100
Atlanta, Georgia 30350

RE: BFI Medical Waste Incinerator
(Proposed Acquisition of Thermal Reduction Systems)
Alamance County
Amendment to Permit No. 01-02

Dear Mr. Holloway:

The Solid Waste Section has conducted a preliminary review of the referenced application for completeness. In accordance with the North Carolina Solid Waste Management Rules, the following information must be submitted in order to continue the review process:

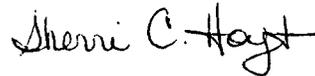
- (1) An Air Permit for the facility must be obtained and a copy forwarded to the Solid Waste Section.
- (2) A management plan for incoming regulated medical waste, which includes waste acceptance criteria, storage and handling methods, and record keeping and reporting measures, in accordance with the operational requirements of 15A NCAC 13B Section .1207(1), shall be incorporated into the operation plan for the facility. The plan must also describe measures to be taken in order to comply with the incinerator design and operational requirements of 15A NCAC 13B Section .1207(3).
- (3) A comprehensive ash management plan which describes, in detail, the collection, handling, storage, sampling, analysis, transportation and disposal of ash must be submitted for review. Please refer to Section .1207 Subparagraphs (3)(f) through (k) of the Medical Waste Management Rules when developing the plan.

Mr. Holloway
June 10, 1991
Page 2

These comments are intended to expedite the review of the application, and in no way do they restrict the Section's right to request additional information following the technical review process.

Should you have any questions, please contact me at (919) 733-0692.

Sincerely,



Sherri C. Hoyt
Environmental Engineer
Solid Waste Section

cc: James Coffey
Julian Foscue
Jeff Rodgers

Routing Slip For
Governor Martin's Log Letters

Date 6-3-91

Referred to : Deuter

Addressee: Dr. David J. Henderson

Carolina Pediatrics & Allergy

P.O. Box 2299

Reidsville, NC 27320

Ref: Opposition to proposed landfill on Haw
River

Please draft a response to this request for Governor Martin's signature. Use Modified Block Style - Indented ¶

Double Space - Print on Plain bond paper.

Reference Initials should be JGM:WWCjr.

CC: William L. Meyer, Director
Division of Solid Waste Management

William L. Meyer _____
Date _____

Return the routing slip and folder along with your response to the Division Office by:

6-14-91
(Response Due Date)

Edythe M. McKinney
Assistant Secretary for
Environmental Protection



TO: Bill Meyer DATE: 6-3-91
RESPOND BY: 6-17-91

- PLEASE:
- Draft a reply for the Secretary's signature and return to me.
 - Reply, noting the letter was referred to you by me
(copy to Secretary's Office):
 - Draft a reply for the Governor's signature and return to me.
 - Draft a reply for my signature and return to me.
 - Reply, noting the letter was referred to you by
Governor Martin (copy to Secretary's Office).
 - For your information.
 - Take appropriate action.
 - Recommend appropriate action.
 - Your comments and/or recommendations.
 - For your approval.

REMARKS:



North Carolina Department of Environment, Health, and Natural Resources
512 N. Salisbury Street • Raleigh 27611 • (919) 733-4984

Dr. David J. Henderson

William W. Cobey, Jr.
Secretary of Environment, Health,
and Natural Resources



TO: EM DATE: 5-31-91
RESPOND BY: 6-17-91

- PLEASE:
- Draft a reply for my signature and return to me.
 - Reply, noting the letter was referred to you by me (copy to Secretary's Office).
 - Draft a reply for the Governor's signature and return to me.
 - Reply, noting the letter was referred to you by Governor Martin (copy to Secretary's Office)
 - For your information.
 - Take appropriate action.
 - Note and file.
 - Note and return to me.
 - Note and see me about this.
 - Your comments and/or recommendations.

REMARKS:

RECEIVED
JUN 8 1991
ASSISTANT SECRETARY
ENVIRONMENTAL PROTECTION

*453
573 0480
457-4474*

512 N. Salisbury Street Raleigh 27611 (919) 733-1984

100-100-100-100
MAY 31 1994
ASST. DIR. OF ENV. & NAT. RES.

FOR INFORMATION OF THE AGENCY AND THE PUBLIC, THE FOLLOWING INFORMATION IS BEING FURNISHED TO YOU:

DATE: 05/17/94
RESPOND BY: 06/17/94

PLEASE RETURN TO: 100-100-100-100 (5/17/94) (5/17/94) (5/17/94)

NAME: CAROL J. GIBSON
ADDRESS: 100-100-100-100 (5/17/94) (5/17/94) (5/17/94)
REIDSVILLE NC 27320

PHONE: 703-233-1000

LOG INFO: UPON TO THE PROPOSED LANDFILL SITE ON THE HAW RIVER

RETURN ATTACHED MATERIALS
FOR YOUR INFORMATION, A COPY AND RETURN
PHONE OR SEE ME AT YOUR CONVENIENCE

✓ PREPARE REPORT FOR GOVERNMENT SIGNATURE AND RETURN
ASSEMBLED WITHIN YOUR OWNERSHIP RETURN LETTER AND COPY OF CONSTITUTION
DATE: 05/17/94
FURNISH TO THE AGENCY HEAD SIGNATURE AND
CORRESPONDENCE FOR RESPONSE TO INQUIRY

RECEIVED BY
DATE
OFFICE

MEMORANDUM



Env / Landfill

580

CAROLINA PEDIATRICS & ALLERGY

of Rockingham Co., P.A.

P.O. Box 2299

601 W. Harrison Street

Reidsville, North Carolina 27320

David J. Henderson, M.D.
Certified American Board of Pediatrics

Office: 349-8402 (KIDS)
Emergencies: 349-8461

May 21, 1991

The Honorable James Martin, Governor
State of North Carolina
Governor's Office
Raleigh, North Carolina

RE: Proposed Landfill Site on the Haw River

Dear Governor Martin:

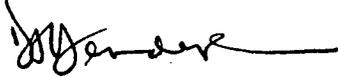
Allow me to catch you off guard with a peculiar brand of negative campaigning. Setting aside all personal interests in my not wanting to see property values in this designated area plummet or my not wanting to see the potential ill effects on the environment in this very sensitive region, let me suggest an alternative to the proposed landfill on the Haw River.

Surely, you and others have already considered the possibility of reclaiming the existing landfill by bulldozing up mountains of recyclable materials, thereby making more space in the existing landfill and taking a positive ecological step at the same time, a step which may even pay for itself and make the proposed new landfill unnecessary. Well, let me get down to the substance of the proposal.

I was recently confronted by a Procter and Gamble advertisement for Luvs Deluxe and Pampers Diapers which I am sure already fill significant percentages of landfill sites around the country. I have enclosed a photocopy of the ad which states "90 days ago this was a disposable diaper." As you can see, beneath the caption is an outstretched hand with apparent compost being filtered through fingers. I would like to put Procter and Gamble to the test by proposing that they purchase this designated landfill site and turn it into a model soil reclaiming project that would essentially "take the soil out of diapers." Any jobs that might be created for the local economy could be augmented by the sale of composting material as possible fertilizing agents and/or potting soil which could be called "Potty Soil." What an ecological coup this could be! Such a proposal is much more likely to be met with raised eyebrow acceptance. After all why should county residents suffer for the landfills needs of Burlington-Graham city residents? We already take care of our own garbage.

Incidentally, the phone number which Proctor and Gamble lists for information about composting resource is 1-800-328-7100.

Sincerely,



David J. Henderson, MD
Concerned Eli Whitney Community Landowner

DJH/shh

cc: Dennis Darcey
5466 3-Waters Drive Lane
Graham, NC 27253

Members, Alamance County Board of Commissioners



Medical Waste Systems®
BROWNING-FERRIS INDUSTRIES

SOUTHEAST REGION

RECEIVED
JUL 24 1991

AIR QUALITY PERMITS

March 18, 1991

Mr. Charles F. Yirka
Environmental Engineer
Air Permit Unit
Dept. of Environment, Health and Natural Resources
512 North Salisbury Street
Raleigh, NC 27611

Dear Mr. Yirka,

Attached are revisions to our operations plans. The information provided includes the names, addresses, and phone numbers of contact people and contingency plan coordinators.

The above information was not available at the time of our initial application submittal. As changes occur in our operations to include personnel, we will update our plan to keep it current.

If there is anything further you need please do not hesitate to call.

Sincerely,

Larry L. Holloway, CSP
Vice President

B. Contact Person

- (1) Larry L Holloway
Vice President
BFI Medical Waste Systems (Southeast), Inc
8607 Roberts Drive
Atlanta, Georgia 30350
(404) 640-2316
- (2) Ed Haas
District Manager
1168 Porter Avenue
Haw River, N.C. 27259
(919) 578-8900
- (3) J.W. Hill
Operations Manager
1168 Porter Avenue
Haw River, N.C. 27259
(919) 578-8900

C. Characteristics of Special Wastes Handled at the Facility

(1) Waste Code

No waste code is available for infectious waste in Title 40 Code of Federal Regulations.

(2) Type By Name

Infectious waste are defined as follows:

Those wastes that potentially contain pathogenic agents that, because of their concentration and quantity, may create a danger to the health of the persons exposed to the waste. The U.S. EPA recommends 13 types of waste be designated infectious wastes:

- * isolation wastes
- * cultures and stocks of etiologic agents
- * blood and blood products
- * pathological wastes
- * other wastes from surgery and autopsy
- * contaminated laboratory wastes
- * sharps

(b) Other Equipment Readily Available

- * Through arrangements with Holt Contractors there is a back hoe available on short notice for liquid containment to prevent the liquid from leaving the site.
- * The abundance of rental companies in the immediate area makes it easy to obtain various pieces of equipment as deemed necessary in an emergency.

(7) Evacuation Plan

- (a) In the event of an evacuation, an announcement will be made over the intercom system and employees should immediately evacuate through the nearest unobstructed exit. Office personnel should follow posted evacuation routes. The muster point will be Main Exit Gate

(8) Emergency Coordinators

- (a) The nature of the operations enables a shift foreman, supervisor, or coordinator to be on location at all times. These individuals have access to a telephone and are in charge of the emergency situations.
- (b) The primary individuals responsible for the coordination and evaluation of an emergency situation are:

Ed Haas
District Manager
3813 Zeneth Place
Durham, N.C. 27705
Bus. (919) 578-8900
Home (919) 477-1275

J. W. Hill
Operations Manager
122 York Street
Cary, N.C. 27511
Bus. (919) 578-8900
Home (919) 467-3030

* Larry L Holloway
1411 Indian Lake Ct
Marietta, Georgia 30062
Bus. (404) 640-2300
Home (404) 973-2351

(9) Responsibilities of the Emergency Coordinator

(a) One of the emergency coordinators will be available at all times, either at the facility or on call.

(b) Upon notification or discovery of an emergency condition the coordinator will evaluate the situation and notify the appropriate agencies to minimize the incident.

(c) In order to properly notify the Agencies, Regional Staff, and Corporate Staff, the coordinator should gather the following information (after the immediate hazard has been brought under control).

- * Name and phone number of the coordinator
- * Name and address of the facility
- * Date and Time of the accident
- * Type of accident
- * Type and quantity of waste involved
- * Extent of injuries if any
- * Possible hazards to health and environment if any
- * Possible hazards to health or environment outside the facility
- * Agencies and names of individuals contacted.

(d) After the emergency condition has been controlled the coordinators are responsible for investigating the incident to assess the damages, determine cause, and what steps need to be taken to prevent a reoccurrence of the incident.

Agencies To Be Notified

In the event of an emergency such as a fire, large spills, sudden release of contaminated materials, or explosion, the following shall be notified immediately:

Fire Department	911
Police Department	911
(electric)	(919) 229-9000
(Water)	(919) 228-8362
(Gas)	(919) 563-3521
* Regional Office	(404) 641-4444
* Corporate Office	(713) 870-8100
* Department of Natural Resources	(919) 896-7007
* National Emergency Response	1-800-424-8802

* These locations will be notified only by the primary coordinator or with his permission.



Central Files
01-02-I
Corresp.

8

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

February 15, 1991

Mr. Larry Parker
Thermal Reduction Systems, Inc.
P. O. Box 2070
Chapel Hill, NC 27515

Re: Leasing of Operations to BFI, Inc.

Dear Mr. Parker:

This correspondence is in response to your letter of January 23, 1991, requesting information as to whether an operations lease is prohibited or limited in any way by state law or regulation. According to conditions set forth in the Air Quality Permit issued by the Division of Environmental Management (DEM), the permit is non-transferable by the permittee. Future owners and operators must apply for a new air permit from DEM.

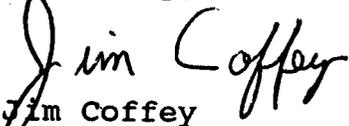
The Solid Waste Section may amend a permit to reflect a new operator. However, this permit would not be effective unless or until the proposed operator obtains a new air quality permit from DEM as required in the conditions of the air quality permit referenced previously, and by 15A NCAC 13B Section .0509 (7) of the Solid Waste Management Rules.

The Solid Waste Section has received an application for permit from BFI, Inc. If you anticipate any significant lag between the issuance of the air quality permit and the issuance solid waste permit, you may apply for an Amendment to Permit #01-02. The application should include a letter of intent to contract with BFI to operate the facility, a copy of the lease agreement or contract, and any other proposed changes.

If you have any questions regarding this correspondence, please contact this office at (919) 733-0692. Any questions regarding the air quality permit should be directed to DEM, Air Quality Section at (919) 733-3340.

Mr. Larry Parker
February 15, 1991
Page 2

Sincerely,


Jim Coffey
Acting Chief
Solid Waste Section

cc: Julian Foscue
Jeff Rodgers
Nancy Scott
Jerry Clayton, Air Quality Section

To: Sherry Hays
Solid Waste

9

February 12, 1991



Mr. Larry Parker, President
Thermal Reduction Systems, Inc.
Post Office Box 2070
Chapel Hill, North Carolina 27515

Dear Mr. Parker:

Subject: Air Permit No. 5896R3
Thermal Reduction Systems, Inc.
Graham, North Carolina
Alamance County

In accordance with your completed application received November 15, 1990, we are forwarding herewith Permit No. 5896R3 to Thermal Reduction Systems, Inc., Graham, North Carolina for the construction and operation of air emission sources or air cleaning devices and appurtenances.

If any parts, requirements, or limitations contained in this permit are unacceptable to you, you may request modification of your air permit pursuant to General Statute 150B-22 through which the permit may be modified by the Director. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which modification is being sought. Unless such a request is made within thirty (30) days following the receipt of this permit, this permit shall become final and binding.

In the alternative, you have the right to request a formal adjudicatory hearing within thirty (30) days following receipt of this permit, identifying the specific issues to be contended. This hearing request must be in the form of a written petition, conforming to General Statute 150B-23 of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, Post Office Drawer 27447, Raleigh, North Carolina 27611-7447. Unless a request is made for either an informal modification procedure pursuant to G.S. 150B-22 or a formal adjudicatory hearing pursuant to G.S. 150B-23, this air permit shall be final and binding.

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Air Quality Section
November 27, 1990

Mr. Larry Parker, President
Thermal Reduction Systems, Inc.
Post Office Box 2070
Chapel Hill, North Carolina 27515

Dear Mr. Parker:

This is to acknowledge receipt of an air permit application on November 15, 1990, for Thermal Reduction Systems, Inc., Graham, North Carolina, Alamance County.

A permit processing fee of \$100.00 is required. You should take immediate action to submit the permit processing fee. Your application is incomplete until the fee is received. If the fee is not received within 60 days of this notice, your application will be returned. The fee should be submitted in the form of a check or money order made payable to the North Carolina Department of Environment, Health, and Natural Resources and addressed to the Air Quality Section, Division of Environmental Management, Post Office Box 27687, Raleigh, North Carolina 27611-7687. For accounting purposes, please refer on your payment to Permit Application Number 012417.

After permit issuance, annual administrating and monitoring fees are now required. These annual fees are based on regulation allowable emissions unless an applicant proposes permit conditions that limit emissions to less than regulation allowables or conditions that restrict operations. The annual fees for sources in compliance range from \$190 for minor facilities, \$640 for major facilities, to \$1,030 for PSD facilities. Minor facilities are permitted to emit less than 100 tons per year of any regulated air pollutant, while major facilities are permitted to emit 100 tons per year or more of any regulated air pollutant.

This application is being processed and reviewed by this office. If you have any questions concerning this matter, please contact ~~Steve Proctor~~ at (919)733-3340.

Sincerely,

SLA

Sammy L. Amerson
Acting Assistant Chief
Air Permits Branch

cc: Myron Whitley

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THERMAL
REDUCTION
SYSTEMS
INCORPORATED

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AIR QUALITY PERMITS

10

Post Office Box 2070
Chapel Hill, North Carolina 27515
919/942-5179

November 12, 1990

Mr. Jerry Clayton
Air Permit Unit
Department of Environment, Health and Natural Resources
512 North Salisbury Street
Raleigh, NC 27611

Dear Mr. Clayton:

Enclosed is a requested modification of the Air Permit Application for Permit No. 5896R2.

Section A, Item 9 is changed to reflect the revision date.

Section C, Items 4, 5, 8, 9 and 16 are changed to reflect an upgrade from the W. W. Sly Manufacturing Company's Model 260 scrubber to the model 265. The larger scrubber will allow increased capacity for the handling of momentary and irregular surge conditions which might occur. It has upgraded construction materials and considerably upgraded controls. A copy of the Model 265 specifications is also enclosed to show details of the scrubber as it is configured for the installation.

Section C, Item 6 and Sections F, Item 3 changed to reflect the current planned operation date.

Sincerely,


Larry Parker

Enclosures

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Additional discrete alarm pilot lights in the control panel include: "Low Spray Header Pressure", "Low Spray Header Flow", "Low Plate Water Flow", "Low Quencher Manifold Pressure", "Low Quencher Flow", and "High Scrubber Differential Pressure" along with a Photohelic Gage. All alarm signals are relay interfaced for local and remote interlocks. Alarm horn with alarm acknowledge capability included.

All scrubber mounted instrumentation devices will be installed and wired to control junction box.

All 110 VAC control functions are wired to control panel mounted terminal strips for field interface wiring between the panel and the scrubber control junction box. (Wiring between control panel and scrubber junction box by others.)

Instrumentation will include:

- (1) Liquid Level Sensor Assembly with three set points.
- (1) Spray Header Flow Switch.
- (1) Plate Water Flow Switch.
- (1) Quencher Water Flow Switch.
- (1) Spray Header Pressure Switch and Gage.
- (1) Quencher Water Pressure Switch and Gage.

Engineering Drawings and Manuals Included:

- (3) Electric Schematic with panel and door.
 - (3) General Arrangement.
Terminal Strip Legend and Bill of Material.
 - (3) Piping and Instrumentation Drawing.
 - (3) Single Line Piping Drawings with Bill of Material.
 - (3) System Instruction Manual and Sequence of Operation, start up and checkout procedure, trouble shooting and spare part list.
- 1 - ITT shell and tube heat exchanger of 316-L stainless steel to cool 10 GPM of 171 F water to below 150 F using 68 GPM of fresh water at 80 F.
- 1 - Water-cooled expansion joint with inlet flange 45" x 45" for connection to refractory lined duct. Outlet of expansion joint will have connecting duct to quencher scrubber inlet. Inlet flange will be 20 feet above grade. Material of construction is INCONEL 625. Weir inlet to have castable refractory infield by others.

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- 1 - Open top tank constructed of Polyethylene and reinforcing with a capacity of 1000 gallons, approximately 6' x 6' x 4'0" high, with overflow weir, internal strainer and fiberglass top.

Tank to be equipped with threaded fittings for pump suction, drain, overflow, additive and level control.

Preassembled instrument piping manifolds for Quencher and IMPINJET scrubber plate and spray manifolds. Piping subassemblies will be preassembled in our shop. The piping system includes:

- 1 - Duplex Basket Strainer, CPVC including manual valves on inlet and outlet for sprays.
- 1 - Pressure switch with discrete pilot light to monitor strainer back pressure.
- 5 - Manual Valves - CPVC (one each for spray and plate lines, quencher, pump inlet and tank blowdown).

System Instrumentation and Controls consisting of:

- 3 - Flowtec liquid flow switches of stainless steel on plate and spray lines with alarm capabilities and discrete pilot lights.
- 1 - Make up water control including manual valve and solenoid valve.
- 1 - Blowdown control for recirculation system including manual valve and solenoid valve.
- 1 - Emergency fresh make-up water control including solenoid valve, manual valve and 2 check valves:
- 2 - Spray water and quencher pressure switches with discrete pilot lights and alarm capability.
- 1 - Liquid level control include: Off-On Selector Switch, "Hi-Level", "Low-Level" alarms and "Adding Water" switches and pilot lights.
- 1 - Rustrak Model 288 strip-chart recorder to provide permanent record of solution pH. For use with above analyzer.
- 1 - Local control enclosure (N.E.M.A. 4) and fused disconnect switch.
- 1 - 110 VAC control circuit transformer.

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- 1 - pH insertion probe, low impedance, with temperature compensation and integral preamplifier with cable. For installation in scrubber drain pipe. Calibration solutions included.
- 1 - Set of internal spray nozzles of type 316 stainless steel, piping and fittings of type 316L stainless steel, with inlet and outlet water connections installed to receive plant service piping, will be provided. Recirculated alkaline solution requirements will be: Inlet to plates 70 GPM at free flow; inlet to sprays 62 GPM at 20 PSIG.
- 1 - Quencher and duct section for scrubber inlet, consisting of (1) vertical duct section, 26" x 26", of 14 ga. 316L stainless steel, and (1) 90° elbow, 01 11 ga. Inconel 625, both with flanges. Elbow to be equipped with quencher sprays, requiring 33 GPM fresh water at 20 PSIG. Duct and elbow together to have same flange-to-flange dimensions as possible future No. 6 Sly VENTURI Scrubber.
- 1 - Set of stainless steel support brackets or pads.
- 1 - Set of 4 structural steel support legs, 6'0" high.
- 1 - New York Blower, Size 454, Series 20, General Industrial Fan with LS wheel, Arrangement 1, complete with flanged inlet and outlet, flush bolted access door, drain, evase and shaft and bearing guard.

All airstream parts to be of stainless steel type 316.

Fan to deliver 14,765 CFM and an assumed 7.1" SP at 1015 RPM and 27.7 BHP at 174 F. saturated.
- 1 - Opposed blade outlet damper (316 SS) with pneumatic actuator.
- 1 - Unitary base with spring isolation.
- 1 - V-belt drive and OSHA GT guard.
- 1 - 40 HP, 1800 RPM, TEFC motor, Frame 324T, for 3-60-230-460 volts with slide base.
- 1 - Fan vibration switch.
- 1 - Prominent Vario Metering Pump Model HM15-044PP, Version 3 Basic Version with on/off control, EDPM diagram. Liquid end is polypropylene. External control for process-dependent signal. Capacity - 14 GPH at 150 PSI.
- 1 - Worthington Worthite 20 recirculating pump.

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THERMAL REDUCTION SYSTEMS, INC.

SCRUBBER SPECIFICATIONS

SLY IMPINJET NO. 265

- 1 - No. 265 Sly IMPINJET Gas Scrubber, to clean up to 34,025 ACFM at 2000 F., with a pressure drop of 5.1" w.g., at an outlet of 14,765 ACFM at 174 F. saturated.

2 stages will be provided, and the shell will be all welded 11 ga. AL-6XN alloy. The unit will be 6'6" diameter, 10'0" straight side height, with 30 top and bottom cones, giving an overall height of 13'3".

Bolted access doors will be provided above and below each plate stage for inspection and access to plates and sprays. The inlet and outlet will have 3/16" stainless steel flanges.

Inlet to be rectangular to match possible future VENTURI scrubber.

- 1 - Fixed blade mist eliminator, with blades of 16 ga. type 316L stainless steel.
- 2 - Sets of type 316 stainless steel impingement baffle plates.
- 1 - Outlet gas temperature indicator meter with 4-digit temperature readout, integral alarm and outlet thermocouple, for continuous temperature monitoring and high temperature alarm warning.
- 3 - Liquid flowmeters for plate and spray water pipes and quencher, variable area orifice bypass type, of 316 SS with Pyrex glass tubes.
- 2 - Pressure gages, Bourdon type, phenolic case with stainless steel gage guards, assembled and filled, for spray water line and quencher.
- 1 - Differential pressure air gage, dial-type with tubing and fittings, for monitoring of scrubber pressure drop.
- 1 - Microprocessor pH analyzer/controller with digital pH meter, to monitor and control the addition of alkaline neutralizer solution to scrubber recirculation system. Analog output signals proportional to pH value are: isolated 4 - 20 mA or 0 - 20 mA. Dual programmable alarms are provided. Automatic temperature compensation allows solution temperature to be read from display. Self-diagnostics identify abnormal operating conditions. Enclosure is NEMA 4X and may be mounted on surface, panel or pipe.

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INCINERATOR

F

page 1 of 2

PLEASE TYPE OR PRINT. ATTACH TO THE GENERAL INFORMATION FORM "A". IF APPLICABLE, ATTACH AIR POLLUTION CONTROL DEVICE FORM "C".

1. Emission Source and ID NO. (FROM GENERAL INFORMATION FORM "A", ITEM 6):
 Incinerator A,B

2. Incinerator Description:
 Dual Chamber Controlled Air

Manufacturer	Model Name	Model Number
Joy Energy Systems, Inc.	T-Series	2500 TES

3. Permit Application is made for (CHECK ONE ONLY):
 New Source Existing Source Modification -- Last Permit No. _____
 Commence Construction Date July 15, 1989 Operation Date January 31, 1991

4. Maximum Source Operation: 24 Hours/Day 7 Days/Week 50 Weeks/Year

5. Type of Waste Burned: (See codes on next page)	Maximum Charging Rate (lb/hr)		Tons/Year Burned	Total Waste Generated (lb/day)
	Design	Actual		
0, 4	1911	1911	8000	3,440 (ash)

6. Combustible 75 % Noncombustible 15 % Moisture 10 % Heat Value 8500 (BTU/lb)

7. Primary Chamber:	Secondary Chamber:	Secondary Chamber Retention Time:	Type of Feed
Volume <u>925</u> cu. ft.	Volume <u>970</u> cu. ft.	Seconds <u>2.28@2000° F</u>	<input type="checkbox"/> Manual
Temperature <u>1450</u> °F	Temperature <u>1800</u> °F	<u>2.02 @1800° F</u>	<input checked="" type="checkbox"/> Automatic

Burner Data:	BURNER RATING (BTU/HR)		AIR FLOW (CFM)		Excess Air (%)
	Primary	Secondary	Overfire	Underfire	
	2,300,000	5,300,000	4340	1080	141

9. Is there a preheat timer? No Yes, Preheating Time 90 Min.

10. Auxiliary Fuel Data: Primary Fuel Type(s) Natural Gas
 Secondary Fuel Type(s) _____

FUEL TYPE	FUEL USAGE			Max. % Sulfur	Max. % Ash	BTU Value
	Max. Design	Max. Actual	Annual			
Natural Gas	7600 (SCF)	7600 (SCF)	6,000,000 (SCF/yr)	Neg.	Neg.	1000 (BTU/SCF)
#2 Fuel Oil	(gal/hr)	(gal/hr)	(gal/yr)			(BTU/gal)
Other						

11. Air Contaminants Emitted:	Maximum Actual Emissions		Emission Estimate Method*	Control Device**	Control Efficiency %
	Before Control (lbs/hr)	After Control (lbs/hr)			
Particulates	10.59	1.05	2	Scrubber	90
Sulfur Dioxide	1.49				
Nitrogen Dioxide	9.56				
Carbon Monoxide	Neg.			--	
Hydrocarbons (VOC)	Neg.				
Lead					
Other (HCl)	30	0.6	2	Scrubber	
Other ()					

*REFER TO BACK OF GENERAL INFORMATION FORM "A" FOR EMISSION ESTIMATION CODE
 **ATTACH APPROPRIATE AIR CONTROL DEVICE FORM "C"

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SUPPLEMENTAL DATA FOR AIR CONTROL DEVICES – continued

***** "SCRUBBER" *****

Type of Scrubber: <input type="checkbox"/> Venturi <input checked="" type="checkbox"/> Impingement Plate <input type="checkbox"/> Packed Tower <input type="checkbox"/> Gravity Tower <input type="checkbox"/> Mist Eliminator		<input type="checkbox"/> Orifice Type <input type="checkbox"/> Cyclonic <input type="checkbox"/> Condenser <input type="checkbox"/> Other _____		Efficiency (%) 90% Particle 98% HCl	Volumetric Flow Rate (ACFM) 28,837	Position in Series # _____ of _____ Units
Gas Flow <input checked="" type="checkbox"/> Countercurrent <input type="checkbox"/> Concurrent		Liquid Scrubbing Medium and Additives (specify) 50% NaOH plus water		Pressure Drop (in. H₂O) 5.1	Inlet Temperature (Deg. F) 1800	Mist Eliminator Filter Area (sq. ft.) 33.17
		Total Liquid Injection (GPM) 132		Make Up Rate (GPM) 33		
Venturi Scrubber Data:	Inlet Area (sq. in.)	Throat Area (sq. in.)	Throat Velocity (ft./sec.)	<input type="checkbox"/> Fixed Throat <input type="checkbox"/> Variable Throat		
Packed or Plate Tower Data:	Surface Area (sq. ft.) 15.5	Packing Depth (ft.)	Type of Packing: <input type="checkbox"/> Rings <input type="checkbox"/> Saddles <input type="checkbox"/> Other _____	No. of Plates 2	Type of Plates impingement	

17. * "ELECTROSTATIC PRECIPITATOR" *****

Efficiency (%)	Volumetric Flow Rate (CFM)	Total Collection Plate Area (sq. ft.)	Pressure Drop (in H₂O)	Inlet Temperature (Deg. F)
Resistivity of Pollutant (OHM-CM)	Gas Viscosity (poise)	Charging Field Strength (volts)	Collecting Field Strength (volts)	
PRECIPITATOR TYPE <input type="checkbox"/> Single Stage <input type="checkbox"/> Two Stage <input type="checkbox"/> Other _____			CLEANING METHOD <input type="checkbox"/> Plate Rapping <input type="checkbox"/> Plate Vibrating <input type="checkbox"/> Other _____	
<input type="checkbox"/> Low Voltage <input type="checkbox"/> High Voltage	<input type="checkbox"/> Hot Side <input type="checkbox"/> Cold Side	<input type="checkbox"/> Plate Rapping <input type="checkbox"/> Plate Vibrating <input type="checkbox"/> Other _____	<input type="checkbox"/> Washing <input type="checkbox"/> None	
Corona Power (Watts/1000 cfm)	Electrical Usage (kw./hr.)	No. of Compartments	No. of Cells/Comp.	Position in Series # _____ of _____ Units

18. * "ADSORPTION" *****

Type of Adsorption: <input type="checkbox"/> One-Pass Regenerative <input type="checkbox"/> One-Pass Nonregenerative		<input type="checkbox"/> Recirculating <input type="checkbox"/> Other _____		Efficiency (%)	Volumetric Flow Rate (ACFM)
Regenerative Method: <input type="checkbox"/> Discarded <input type="checkbox"/> Chemical <input type="checkbox"/> Other _____		<input type="checkbox"/> Thermal (dry heat) <input type="checkbox"/> Thermal (steam)		Adsorption Material: <input type="checkbox"/> Activated Carbon <input type="checkbox"/> Hydrous Silicated <input type="checkbox"/> Other _____	Position in Series # _____ of _____ Units
Pressure Drop (in H₂O)	Inlet Temperature (Deg. F)	No. of Compartments	How are emissions controlled during regeneration? _____		

Size of Adsorbent Bed (ft.)
 Length _____, Width _____, Height _____, Diameter _____

Regenerative Schedule: Maximum Time for Desorption _____
 Length of Time to Maximum Saturation _____

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AIR POLLUTION CONTROL DEVICE

PLEASE TYPE OR PRINT. ATTACH TO GENERAL INFORMATION FORM "A". SUPPLY DESIGN DATA, SPECIFICATIONS, AND AVAILABLE ENGINEERING DRAWINGS.

1. Air Control Device and ID No. (FROM GENERAL INFORMATION FORM "A", ITEM 6)
Sly IMPINJET Gas Scrubber, A,B

2. If there are several devices in series, list each unit in series starting at the emission source.

(1) Scrubber (2) (3) TOTAL UNITS 1

3. Indicate Emission Source and ID No. that Control Device(s) is installed on:
Joy Incinerator, Model 2500 TES

4. Narrative Description of Control Device(s):

Flue gases pass through a quencher and then up through the openings in perforated plates. HCl gases and particulates are removed with NaOH solution. Gases exit through a fixed blade mist eliminator.

Manufacturer Model Name Model Number
The W. W. Sly Manufacturing Company, Sly IMPINJET gas scrubber 265

5. Estimated Cost of Control Device Period of Time Control Device is Estimated to be Adequate:
\$ 216,000 each over 10 Years

6. Permit Application is made for (CHECK ONE ONLY):
(X) New Source () Existing Source () Modification - Last Permit No.
Commence Construction Date July 15, 1989 Operation Date January 31, 1991

Table with 9 columns: Emission Parameters, Pollutant(s) Controlled, PART., SO2, NOx, CO, VOC, LEAD, OTHER, OTHER. Rows include Emission Rate Before Control, Emission Rate After Control, and Removal Efficiency Percent.

Particle Size Distribution of Particulates Entering Control Device (% Micron):
15 0-1 85 1-10 10-25 25-50 50-100 Over 100

Table with 3 columns: Gas Conditions at Control Device, INLET, INTERMEDIATE LOCATIONS, OUTLET. Rows include Flow Rate, Temperature, Velocity, Pressure Drop, and Moisture.

9. Describe Ultimate Disposal of Collected Materials:
Liquid discharge (300 gallons/hr) will be cooled below 150°F using a heat exchanger and piped to sanitary sewer.

10. Stack or Emission Point Data:
Height Above Ground (ft.) Inside Area (sq. ft.) Direction of Exit (up, down, or horizontal) Are there obstructions over the stack?
65 6.28 Up (X) No () Yes, (specify)
Is scaffolding available for sources testing? Are sampling ports available?
() No (X) Yes () No (X) Yes

11. Comments:

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Environmental Management Commission

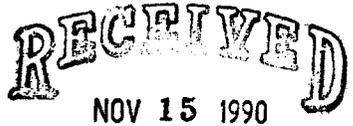
AIR PERMIT APPLICATION*

GENERAL INFORMATION

INSTRUCTIONS ON BACK

*To construct and operate Air Emission Sources and Control Devices in accordance with N. C. General Statutes Chapter 143, Article 21.

PLEASE TYPE OR PRINT. ATTACH APPROPRIATE EMISSION SOURCE AND CONTROL DEVICE FORMS FOR EACH SOURCE LISTED IN ITEM 6 BELOW.

1. Facility Name (Company, Establishment, Town, Etc.): Thermal Reduction Systems, Inc.				Date	FOR DEM USE ONLY DATE RECEIVED:  NOV 15 1990 AIR QUALITY PERMITS PERMIT NUMBER: _____ DATE ISSUED: _____
2. Site Location (St./Rd./Hwy.): Porter Avenue		City Graham	Zip Code 27253	County Alamance	
Latitude 36° 08'	Longitude 79° 30'	SIC Code 4953			
3. Mailing Address (P. O. Box/St./Rd./Hwy.): P. O. Box 2070					
City Chapel Hill	State NC	Zip Code 27515	Phone with Area Code 919-942-5179		
4. Applicant Technical Contact: Larry Parker		Title President	Phone with Area Code 919-942-5179		
5. Description of operation conducted at above facility: Solid Waste Incineration					

6. List each EMISSION SOURCE and CONTROL DEVICE for which application is made. Assign an ID NUMBER to each emission source and control device which uniquely identifies that source. Attach appropriate emission source and control device forms for each.

EMISSION SOURCE	ID NO.	CONTROL DEVICE	ID NO.
Incinerator	A	Impingement plate scrubber	A
Incinerator	B	Impingement plate scrubber	B
Two (2) Joy incinerators with Sly scrubbers will be installed to replace two existing incinerators currently permitted under Air Permit No. 5896R. All entries in the application form are values for each incinerator with its associated scrubber.			

USE SEPARATE SHEET(S) IF NEEDED

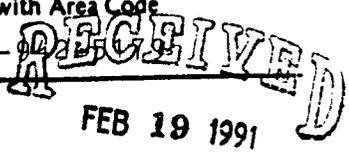
7. Maximum facility operation: 24 Hours/Day 7 Days/Week 50 Weeks/Year

8. Name and address of engineering firm that prepared application or plans:
Joy Energy Systems, Inc. 11900 Westhall Drive Charlotte, NC 28217

9. Signature of responsible person or company official:

Original May 24, 1989
Date Rev. Nov. 12, 1990

Signer's Name (TYPE OR PRINT) Title Phone with Area Code
Larry Parker President 919-942-5179


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Each incinerator is equipped with a Sly Impinjet gas scrubber. The scrubber contains sets of stainless steel impingement baffle plates which acts to break down the exhaust gas for better contact with the scrubbing solution entering counter-current to the air flow. The scrubber liquid injection rate is 132 gallons per minute (gpm) of sodium hydroxide solution. The gas to liquid ratio is 218 cfm's per gallon of liquid injected. There are two impingement plates each with 15.5 square feet of face area. Pressure drop is 5.1 inches water gauge. To keep entrained water from exiting the stack, a mist eliminator filter with 33.17 square feet of filter area is included. The liquid drains down and is recirculated into the scrubber. The drain down action also acts as a self-cleaning action for the filter. Temperature of the exhaust gas entering the scrubber is 1800 degrees Fahrenheit and the temperature as it exits the scrubber is 171 degrees Fahrenheit.

All data indicates this to be a well designed scrubber and the reported efficiency of 90% for particulate and 98% for HCl could be expected. Actual particulate emissions would be 2.1 lbs/hr which is no change from that previously permitted by permit number 5896R2.

3. New Source Performance Standards [NSPS] and National Emission Standards for Hazardous Air Pollutants [NESHAP] do not apply. Air toxic regulation (.1100) does not apply because all emissions of listed toxic pollutants are below de minimus levels.. Prevention of Significant Deterioration [PSD] and the air toxic regulations do not apply because this modification results in no increase of emissions. The baseline date for particulate has been triggered; however increment changes are zero.

All applicable DEM air regulations should be met. Recommend issuance of the air permit. Regional office concurs. Ref: Brent Rockett telecon on 02/04/91.

AIR PERMIT REVIEW

APPLICANT THERMAL REDUCTION SYSTEMS, INC		SITE LOCATION GRAHAM		COUNTY ALAMANCE	
CONTACT LARRY PARKER	PHONE (919)942-5179	APPLICABILITY: NSPS	NESHAP	TAX	OTHER X
APP NO. APP012417	REVIEWER: STEVE PROCTOR	SIGNATURE: 		DATE 01/31/91	

RECOMMENDATION AND COMMENT:
ISSUE P/N 5896R3

- Application is made for modification of existing permit to include construction and operation of two impingement plate type wet scrubbers (132 gallons per minute of NaOH solution, ID Nos. A and B) to replace two smaller units which were previously permitted but not constructed. Scrubbers are to installed one each on two natural gas-fired, 1911 pounds per hour maximum permitted charging capacity, type 0 and 4 waste, multiple chamber incinerators each with a 2.3 million Btu per hour maximum heat input primary burner and a 5.3 million Btu per hour maximum heat input secondary burner.
- Applicable regulations for this modification are:
 - .0505 "Control of Particulates From Incinerators"
 - .0516 "Sulfur Dioxide Emissions from Combustion Sources"
 - .0521 "Control of Visible Emissions"
 - .0522 "Control and Prohibition of Odorous Emissions"
 - .0535 "Excess Emissions Reporting and Malfunctions"

Allowable particulate emission rate for each incinerator is 3.82 pounds per hour (lbs/hr) or 16.74 tons per year (tpy). Sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu input. Visible emissions shall have an opacity of no greater than 20 percent and the facility shall not operate without employing suitable measures for the control of odorous emissions.

Potential particulate emissions (before control) are 10.59 lbs/hr based on information received in the air permit application. Sulfur dioxide potential emissions are negligible from the waste and per AP-42, they are 0.0174 lbs/hr or 0.076 tpy from burning natural gas. These emissions would require a particulate removal efficiency rate of 64.12%.

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6. This Permit is subject to revocation or modification by this Division upon a determination that information contained in the application or presented in support thereof is incorrect, conditions under which this Permit was granted have changed, or violations of conditions contained in this Permit have occurred. The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no air emission source may be operated without the concurrent operation of its associated air cleaning device(s) and appurtenances.
7. This Permit is nontransferable by the Permittee. Future owners and operators must obtain a new air permit from the Division of Environmental Management.
8. This Permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or Local water quality or land quality control authority.
9. Reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Regional Supervisor, Division of Environmental Management at such intervals and in such form and detail as may be required by the Division. Information required in such reports may include, but is not limited to process weight rates, firing rates, hours of operation, and preventive maintenance schedules.
10. A violation of any term or condition of this Permit shall subject the Permittee to enforcement pursuant to North Carolina General Statute 143-215.114, including assessment of civil penalties.
11. Pursuant to G.S. 143-215.3 (a)(2), no person shall refuse entry or access to any authorized representative of the Division of Environmental Management who requests entry or access for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

Permit issued this the 12th day of February, 1991.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

George T. Everett, P.E.

George T. Everett, Director
Division of Environmental Management
By Authority of the Environmental Management Commission

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11. The Permittee must comply with any applicable Federal, State, or local requirements governing the handling, disposal, or incineration of hazardous, solid, or medical wastes, including the Resource Conservation and Recovery Act (RCRA) administered by the Division of Solid Waste Management.

B. GENERAL CONDITIONS AND LIMITATIONS

1. REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, AND REQUESTS for RENEWAL shall be submitted to the:

Regional Supervisor
North Carolina Division of Environmental Management
Winston-Salem Regional Office
8025 North Point Boulevard, Suite 100
Winston-Salem, North Carolina 27106

2. PERMIT RENEWAL REQUIREMENT - The Permittee at least ninety (90) days prior to the expiration of this Permit shall request its extension by letter. The letter should include the permit number, the appropriate renewal fee, description of any modifications, and should be sent to the Regional Supervisor, Division of Environmental Management.
3. ANNUAL FEE PAYMENT - The Permittee must pay the annual administering and compliance fee or submit a certification for exemption within 30 days after being billed by the Division. Failure to timely pay the fee or submit a certification for exemption in accordance with 15A NCAC 2H .0609(m) will cause the Division to initiate action to revoke the permit.
4. EQUIPMENT RELOCATION - A new air permit shall be obtained by the Permittee prior to establishing, building, erecting, using, or operating the emission sources or air cleaning equipment at a site or location not specified in this permit.
5. REPORTING REQUIREMENT - Any of the following that would result in previously unpermitted, new, or increased emissions must be reported to the Regional Supervisor, Division of Environmental Management:
 - (a) changes in the information submitted in the application regarding facility emissions,
 - (b) changes that modify equipment or processes of existing permitted facilities, or
 - (c) changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the Division of Environmental Management to reflect any necessary changes in the permit conditions. In no case are new or increased emissions allowed that will cause violation of the emission limitations specified herein.

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7. NOTIFICATION REQUIREMENT - Within 15 days after start-up of the new facilities the Permittee shall provide written notice of the start-up to the Regional Supervisor, Division of Environmental Management.
8. NOTIFICATION REQUIREMENT - As required by 15A NCAC 2D .0535, or for sources applicable to 15A NCAC 2D .0524 or .0525, when particulate, visible, or odorous emissions exceed Environmental Management Regulations for more than four hours the Regional Supervisor, Division of Environmental Management, Winston-Salem Region, (919) 761-2351, shall be notified as promptly as possible but in no case later than 24 hours of becoming aware of the occurrence. Such notice shall specify the facility name and location, the nature and cause of the excess emissions, the time when first observed, the expected duration, and the estimated rate of emissions. This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.
9. Operation of the incinerators shall be in accordance with the following conditions and stipulations:
 - a. The Permittee shall not exceed a maximum charge weight of 1,911 pounds per hour to each incinerator. Records indicating the hourly (beginning on the hour) weight charged to the incinerators shall be maintained and available for inspection by the Division of Environmental Management,
 - b. The Permittee shall not charge any waste into the incinerator until the proper operating temperature of 1,800 degree F is attained in the secondary chamber,
 - c. Continuous temperature recorders shall be maintained for the primary and secondary chambers of each incinerator,
 - d. Pressure drop across the wet scrubbers shall be monitored and recorded hourly,
 - e. No waste shall be maintained on site greater than twelve hours unless refrigerated, and no waste shall be stored on site for longer than ten days, and
 - f. The incinerators stack height shall be a minimum of 65 feet above ground level.
10. The issuance of this permit in no way absolves the permittee of liability for any potential civil penalties which may be assessed for violations of State law which occurred prior to the effective date of this permit.

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2. Visible emissions from the Permitted Item No. 1 shall not be more than 20 percent opacity when averaged over a six-minute period, except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. However, sources which must comply with 15A NCAC 2D .0524 or .0525 must comply with applicable visible emissions requirements contained therein.
3. REPORTING REQUIREMENT - This Permit may be revoked unless the scrubbers (Permitted Item No. 1) and appurtenances are constructed in accordance with the approved plans, specifications and other supporting data. Within 15 days after start-up of the new or modified facilities the Permittee shall provide written notice of the start-up to the Regional Supervisor, Division of Environmental Management. If the proposed operational date of March 1, 1991 is not met a revised permit is not needed. However, within 15 days after the proposed operation date is not met, the Permittee must notify in writing the Regional Supervisor of the new proposed operational date. Any existing equipment being replaced is permitted to operate in compliance until the replacement equipment is operational.
4. The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive particulate emissions from becoming airborne.
5. TESTING REQUIREMENT - Under the provisions of North Carolina General Statutes 143-215.108 the Permittee shall demonstrate compliance with the emission limit(s) by testing the incinerators, while charging at least 90 percent of maximum charging capacity for visible and particulate emissions using EPA Method(s) 9 and 5, respectively. The test results must be submitted to the Regional Supervisor, Division of Environmental Management, in accordance with the approved procedures of the Environmental Management Commission within 90 days after the initial operation date. This Permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated if the results of the test(s) indicate that the facility does not meet applicable limitations. The Method 1 requirements of 40 CFR 60, Appendix A, "Sample and Velocity Traverses for Stationary Sources", should be considered during any construction and be met for emissions testing purposes. All associated testing costs are the responsibility of the Permittee.
6. NOTIFICATION REQUIREMENT - To afford the Division of Environmental Management Regional Office the opportunity to have an observer present, the Permittee shall provide the Regional Office in writing at least 15 days notice of any required performance tests.

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NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL MANAGEMENT

A I R P E R M I T N O. 5896R3

Issue Date: February 12, 1991

Effective Date: February 12, 1991

Expiration Date: July 1, 1993

Replaces Permit: 5896R2

To construct and operate air emission source(s) or air cleaning device(s), and for the discharge of the associated air contaminants into the atmosphere. In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations,

Thermal Reduction Systems, Inc.
Porter Avenue
Graham, Alamance County, North Carolina

is hereby authorized to construct and operate air emission sources or air cleaning devices and appurtenances consisting of:

1. two impingement plate type wet scrubbers (132 gallons per minute of sodium hydroxide solution, ID Nos. A and B) with mist eliminators installed one each on two natural gas-fired, 1,911 pounds per hour maximum permitted charging capacity each, type 0 and 4 waste, multiple chamber incinerators each with a 2.3 million Btu per hour heat input primary burner and a 5.3 million Btu per hour heat input secondary burner,

in accordance with the completed application (APP012417) received November 15, 1990, including any plans, specifications, previous applications, and other supporting data, all of which are filed with the Department of Environment, Health, & Natural Resources and are incorporated as part of this Permit.

This Permit is subject to the following specified conditions and limitations including any TESTING, REPORTING, or MONITORING REQUIREMENTS:

A. SPECIFIC CONDITIONS AND LIMITATIONS

1. Any air emission sources or control devices authorized above must be operated and maintained in accordance with the provisions contained herein. The Permittee shall comply with applicable Environmental Management Commission Regulations, including 15A NCAC 2D .0505, .0516, .0521, .0522, and .0535.

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Mr. Larry Parker
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February 12, 1991

As a reminder, all new construction of air pollution sources, air cleaning devices, or modifications to the sources contained in this permit must obtain as required a permit from this Division prior to construction. Failure to do so is a violation of General Statute 143-215.108 and may subject the permittee to civil or criminal penalties contained in General Statute 143-215.114.

This permit shall be effective from February 12, 1991, until July 1, 1993, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Sincerely,

Laura S. Butler, P.E.

fr George T. Everett

Enclosures

cc: Larry Coble

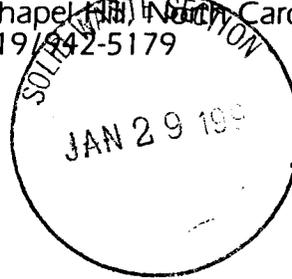
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Post Office Box 2070
Chapel Hill, North Carolina 27515
919/942-5179

January 23, 1991



Mr. Jim Coffey
Environmental Engineer 2
Solid Waste Section
NCDEHNR
P. O. Box 27687
Raleigh, NC 27611-7687

Re: Leasing of Operations to BFI, Inc.
By TRS, Inc.

Dear Mr. Coffey:

As you know TRS, Inc. has been granted a solid waste permit for a medical waste incinerator now under construction in Graham, NC. The facility should be complete in the near future.

It is our hope to eventually sell the facility to BFI, Inc. BFI has already submitted applications for solid waste and air quality permits, which we all understand must be issued before we can transfer title to the facility. We are interested, however, in leasing the operations to BFI while their applications are pending before the state.

Our attorneys have informed us that they know of nothing that would prohibit an operations lease. However, I do not want to jeopardize our permits or violate any rule or regulation related to the permits. As such, I seek your guidance and advice.

Please let me know as soon as possible whether or not an operations lease is prohibited or limited in any way by state law or regulation. We wish to avoid the problem of hiring the numerous personnel we would need to operate the facility only to let them go six or eight months from now if BFI's permits are issued. We would much prefer to hire staff later only if we know we are going to be operating the facility permanently.

I look forward to hearing from you soon.

Sincerely,

Larry Parker
President