

AL



GULF COAST RECYCLING, INC.

1901 NORTH 66th STREET • TAMPA, FLORIDA 33619
PHONE: (813) 626-6151 FAX: (813) 622-8388

December 27, 1996

RECEIVED

JAN 02 1997

BUREAU OF
AIR REGULATION

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

RE: Gulf Coast Recycling, Inc., PSD Application (PSD-FL-215)

Dear Mr. Fancy:

As a follow up to the November 26, 1996 teleconference, please find enclosed the manufacturer's literature on the battery recycling equipment and desulfurization process. The proposed removal efficiency of the desulfurization process is contained within. The information provided is to my knowledge the only "technical data" available from M. A. Industries and Engitec Impianti concerning sulfur removal during the battery recycling process.

The additional sulfur removal, by re-pulping the filter cake, mentioned by M. A. Industries would potentially require Gulf Coast Recycling, Inc. (GCR) to purchase a second Desulfurization process at a cost of approximately \$300,000. Our present Desulfurization process consists of two (2) twenty thousand (20,000) gallon agitated reaction tanks and forty (40) cubic feet plate and frame filter presses. This system is designed for continuous operation with once through lead oxide and lead sulfate processing. Therefore, it may not be capable of processing the input of lead oxide and lead sulfate from normal battery recycling operations and the reintroduction of processed filter cake. The two reactors and filter presses operate in parallel. When the No. 1 reactor is full and the reaction is

complete, the slurry is pumped to the no. 1 filter press. At this point input from the battery recycling operation is diverted to the No. 2 reactor and the No. 2 filter press after the reaction is complete. This rotation is completed throughout the day with each reactor being emptied or filled causing each reactor to be on-line continuously.

If the re-pulping of the filter cake could be considered advanced desulfurization, with an addition potential sulfur removal of 1/2 (one half) to one percent, the cost burden does not seem to warrant the small increase in removal efficiency.

Should you need additional information or have any questions, please contact George Townsend at (813) 626-6151.

Sincerely,

Willis M. Kitchen

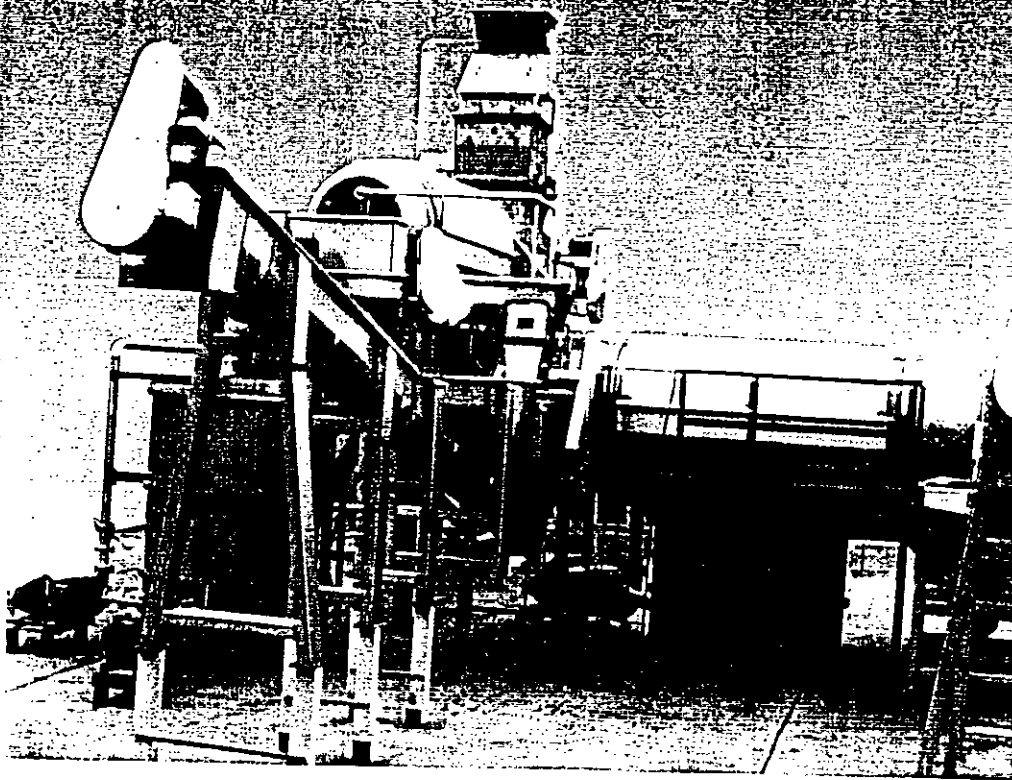
Willis M. Kitchen
President,

pc: George Townsend
William B. Taylor
Stephen Smallwood, ERM-South
Jerry Campbell, EPC

File:GTA4-479

Low-Cost Recovery of Valuable Lead and Plastics

***THE LATEST
TECHNOLOGY IN
Scrap Battery
Reclamation***



M.A. INDUSTRIES, INC.

Quality Products Through Creative Research

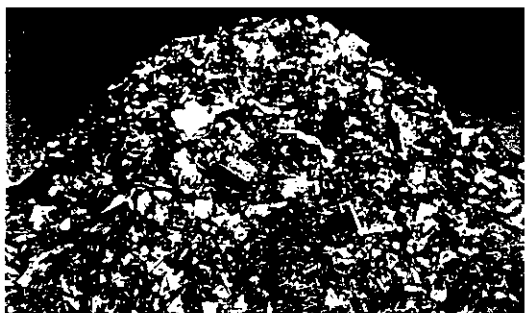
High Profit Recovery Systems for Low or High Capacities

Proven in Installations Around the World

M.A. Industries has expanded on their success of their popular Simple System (SS) and Complete System (CS) scrap battery processing systems and has recently developed a new line, the Desulphurization System (DS) system. In addition to the DS line of battery breakers we are also offering systems for paste desulphurization, sodium sulphate crystallization and polypropylene reclamation systems.



▲ Metallic Lead



▲ Separator/Hard Rubber

▼ Lead Paste



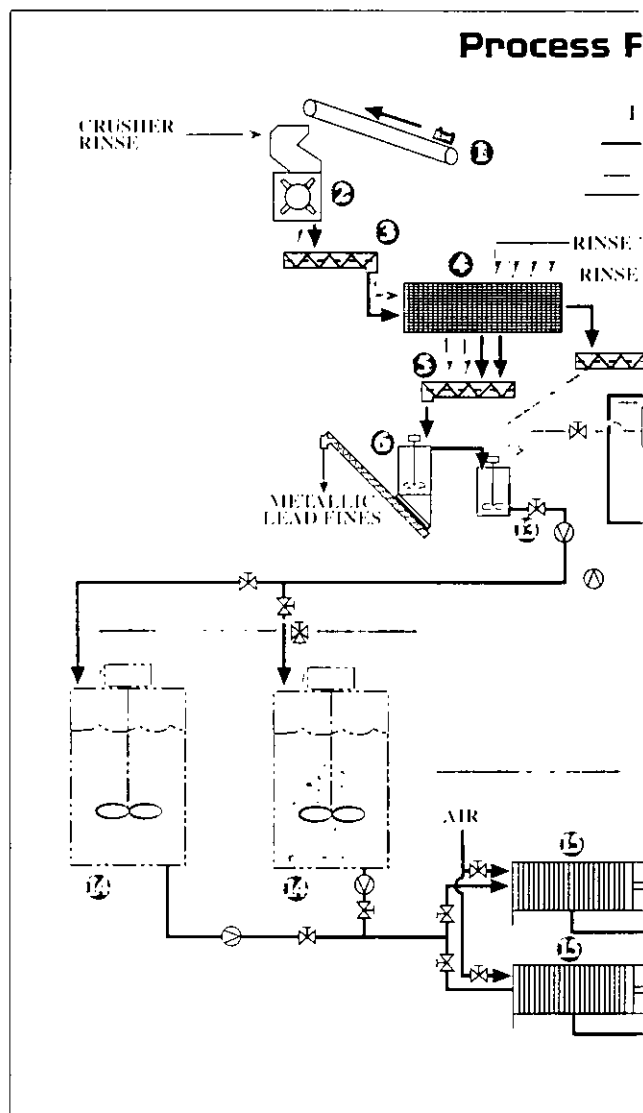
The DS system was developed to produce the cleanest lead paste fraction possible in order to allow for the subsequent desulphurization of the paste. The DS line differs extensively from the prior SS and CS lines. The CS's

oxide classification conveyors have been replaced by rotary screens in order to achieve a better separation between products, in addition the DS system has done away with the need to use oxide removal classifiers.

After the battery is broken in the hammermill all of the material is screw conveyed to the primary rotary screen where virtually all of the paste is removed. The paste then is trans-

ported to the elutriator where it is held in suspension allowing only the very fine metallic lead to sink to the bottom where it is conveyed to the lead metals classifier. From the elutriator the paste goes to a filter press feed

tank and then to the filter press or optional paste desulphurization. After the lead is removed in the lead metals classifier the remaining plastic and separator/hard rubber fraction pass through a second rotary



Features

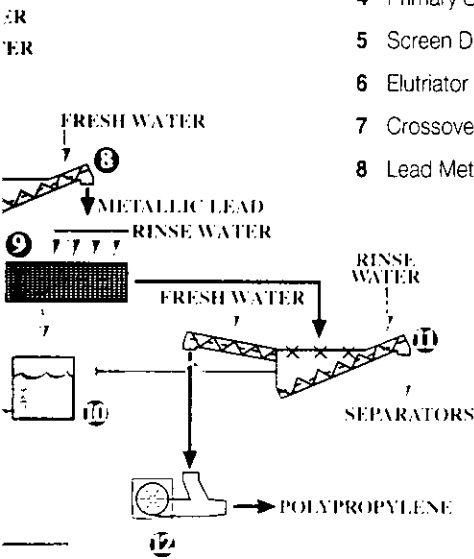
- ▶ Systems for small or large capacity operations
- ▶ Wet classification method
- ▶ Stainless steel for durability
- ▶ High level of automation
- ▶ Efficient, controlled water use
- ▶ Proven success in scores of installations worldwide

Benefits

- ▶ 99%-plus lead yield
- ▶ Higher profits
- ▶ Low labor costs
- ▶ Low maintenance costs
- ▶ Low energy costs
- ▶ Reduced processing cost per ton
- ▶ Simplified environmental compliance

Diagram

Legend
 → Material Flow
 → Liquid Flow



Unit Description

- 1 Feed Conveyor
- 2 Crusher
- 3 Crusher Discharge Screw
- 4 Primary Screen Unit
- 5 Screen Discharge Unit
- 6 Elutriator
- 7 Crossover Feed Screw
- 8 Lead Metals Classifier

- 9 Secondary Screen Unit
- 10 Recirculation Tank
- 11 Rubber/Plastic Classifier
- 12 Air Conveyor Unit
- 13 Surge Tank
- 14 Reactor Vessel
- 15 Filter Press

screen where they are washed to remove any remaining lead before being separated in the plastics/hard rubber classifier.

Paste Desulphurization System (SRP)

M.A.'s paste desulphurization system was developed to reduce the sulphur content in the paste fraction from our DS system. The system is composed of two reactors in which one is being reacted then discharged while the second is being filled and reacted.

The process is a very simple one in which Na_2CO_3 (soda ash) is reacted with PbSO_4 (lead sulfate paste), the resulting reaction creates PbCO_3 (lead carbonate) and Na_2SO_4 (sodium sulfate). After the reaction is complete the slurry is pumped to one of two plate and frame type filter presses. The resulting filter cake is approximately 10% moisture and is ready to be fed to a furnace. The Na_2SO_4 solution can be discharged or go on to further processing to crystallize the Na_2SO_4 if local regulations prohibit discharge of such a solution.

Polypropylene Reclamation Systems

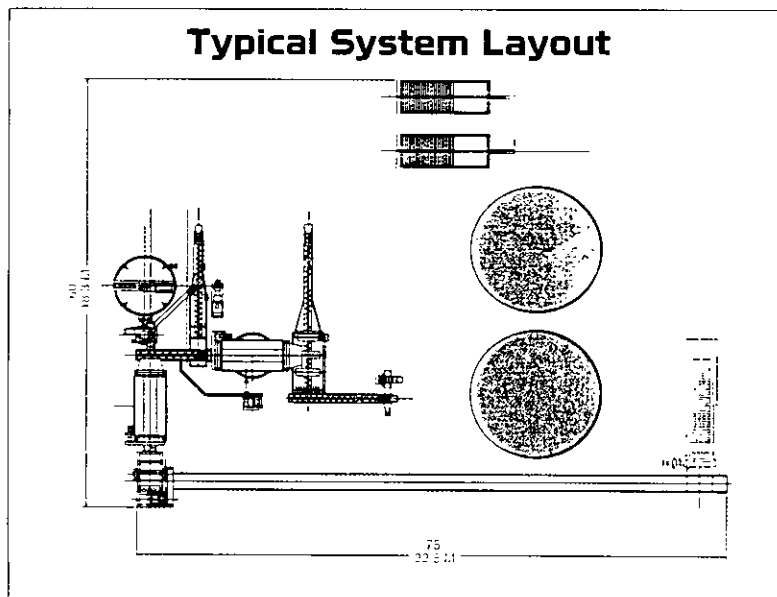
The M.A. polypropylene reclamation system was developed to add value to the polypropylene fraction obtained from our DS battery

breaker. This system incorporates intensive washing, drying, extrusion and pelletizing to produce a pellet which can go back into new battery cases or virtually any other application that a virgin polypropylene would be used in.

▼ Polypropylene Chips



Typical System Layout



Materials and Construction

All components are made with stainless steel and special stainless steel alloys for excellent corrosion resistance. All motors are totally enclosed, fan-cooled (TEFC). Gear reduction units are of heavy duty rating. Polyethylene bearings are used where exposed to acid. Crusher feed conveyors are belt conveyors with an acid-resistant PVC belt.

All systems use state-of-the-art electronic and control devices to monitor pH and tank levels. Electrical controls are interlocked as an added safety measure and upon request the controls can be PLC controlled to automate the battery breaking and/or the desulfurization systems.

DS System Specifications

	M.A. 21	M.A. 31	M.A. 41	M.A. 51	M.A. 61
Typical capacity, MT (tons) per hour	5.0 (5.5)	10.0 (11.0)	20.0 (22.0)	35.0 (38.6)	50.0 (55.1)
Batteries per hour	300	600	1200	2100	3000
Fresh water demand m ³ per hour*	3.5 (925)	7.0 (1850)	14.0 (3700)	24.5 (6472)	35.0 (9246)
Water pressure Kg/Cm ² (PSIG)	4.22 (60)	4.22 (60)	4.22 (60)	4.22 (60)	4.22 (60)
Total connected power, Kw (hp)*	123 (165)	131 (175)	203 (272)	259 (347)	333 (447)
Labor (operating and loading), persons per shift*	2	2	2	2	2

All specifications contained in this brochure are descriptive of typical operation and do not constitute a guarantee of performance. M.A. Industries reserves the right to make modifications or changes to the processes and equipment offered at any time without notice. M.A. Industries' battery scrap process is covered by international patents.

Call Us Today

*These figures are based on our basic systems. The addition of optional pieces of equipment may change these figures. Please contact us for further information on your particular specification.

M.A. Industries has a battery reclamation / classification system to suit your processing requirements. We can satisfy your objectives for capacity, cost per ton, and return on investment. You'll be surprised with the profit potential!

For further information, including current economic models for your operation, call us at (770) 487-7761 or FAX (770) 487-2710. We would like to work with you.



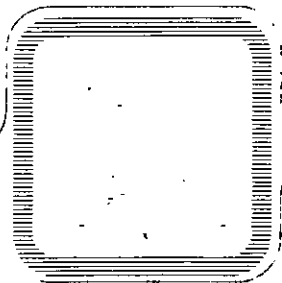
M.A. INDUSTRIES, INC.

Quality Products Through Creative Research

P.O. Box 2322 / 303 Dividend Drive
Peachtree City, Georgia 30269

Phone (770) 487-7761 • FAX (770) 487-2710
Telex 54-2685

DEC 07 1995



M. A. INDUSTRIES, INC.

Quality Products Through Creative Research

Orig: GT
CC: WMK
LAK
JM

December 4, 1995

Mr. George Townsend
Gulf Coast Recycling, Inc.
1901 North 66th Street
Tampa, FL 33619

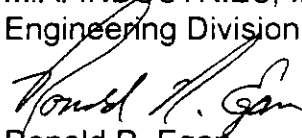
Dear George,

As we discussed on the telephone earlier this afternoon, I have done some research and have concluded that the total sulfur content you could expect in your lead paste would be on average $1\frac{1}{2}$ % by weight. This figure is based on the paste not being repulped (mixing the paste back with water to release any free sulfur and running it again through a filter press).

If the paste is repulped I would estimate that your total sulfur content would be in the range of $\frac{1}{2}$ - 1 % by weight.

If I can be of any further assistance to you or answer any questions please feel free to contact me.

Best Regards,

M.A. INDUSTRIES, INC.
Engineering Division

Ronald R. Egan
Marketing Manager

FAXED 4 Dec 95

CX SYSTEM PLANT

For the environmental clean treatment of spent lead acid batteries and the recovery of battery components



Engitec Impianti S.p.A.

CHARACTERISTICS OF THE CX[®] SYSTEM PLANT

The process for scrap battery components recovery was developed by Engitec Impianti S.p.A. using proprietary technology. The CX System process has been applied and improved in several plants in Europe, the Unites States and the Middle East since 1982.

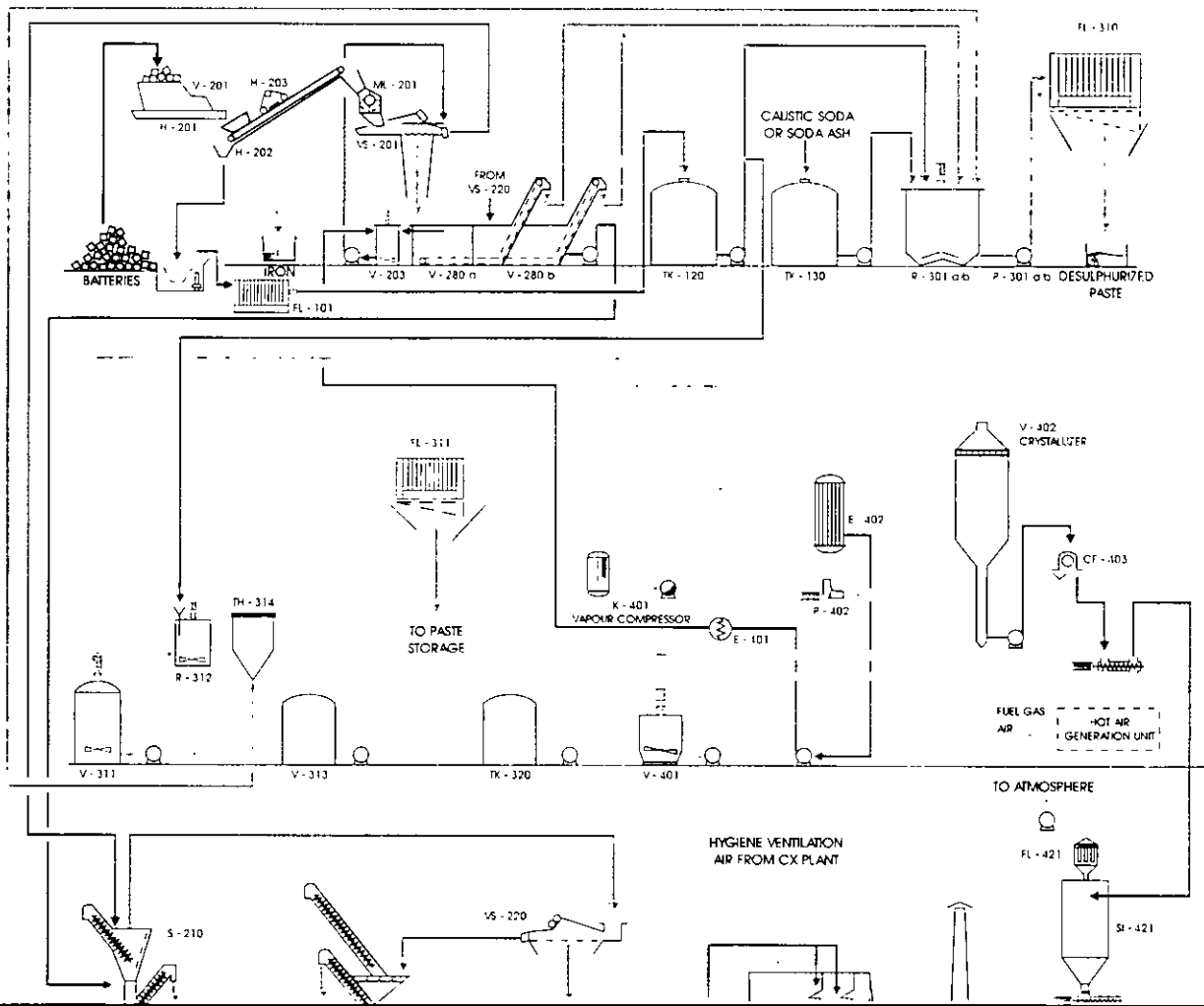
The process can be grouped into two phases:

Phase one: The CX System process performs the separation of battery components.

Phase two: The CX System process desulphurizes the paste, neutralizes the electrolyte, and produces detergent grade sodium sulphate.

Several distinct characteristics are associated with the CX System process:

- SLI and industrial (traction) batteries processing
- High efficiency of component recovery
- High product quality
- Transformation of sulphur contained in batteries (electrolyte and $PbSO_4$) into detergent grade Na_2SO_4 salt crystals
- No liquid effluent - no need for waste water treatment plant
- Air pollution regulations are met - all dust or acid mist generating equipment is put under suction and connected to a scrubbing system
- Separate smelting of grid metal and paste - hard and soft lead is obtained
- Sensible improvements in smelting of desulphurized paste
- Minimum equipment maintenance - stainless steel or super alloy heavy duty construction





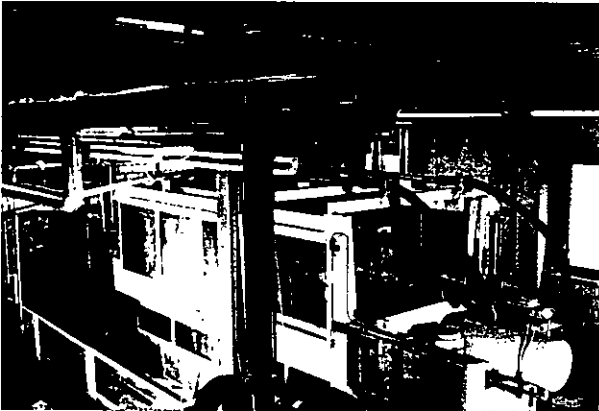
The batteries are loaded into the feed hopper (V-201). From the feed hopper, the batteries are conveyed to the hammermill (ML-201) where the components are crushed and separated. The vibroscreen (VS-201), installed under the hammermill, separates the paste and the recirculating wash water from the oversize fragments.

The paste is then collected in a settling tank (V-280) where it is densified before being sent into the desulphurization reactors (R-301).

The oversize fragments from the vibroscreen are conveyed into the hydrodynamic separator (S-210), which separates the fragments into the following streams:

- Polypropylene
- Metallic leads (Grids and Poles)
- Ebonite and separators

The ebonite and separators are dewatered in a vibrating screen (VS-220). From the vibrating screen these components are conveyed into a second separator (S-221) that recovers polypropylene fragments from the first separation step before the ebonite and separators are collected for disposal.



The electrolyte drained from the batteries is collected, filtered, stored into a tank (TK-120). From this tank, the electrolyte is pumped into the desulphurization reactor (R-301), where it joins the densified paste to form a slurry. The paste desulphurization and the electrolyte neutralization is performed by adding NaOH or Na₂CO₃ into the desulphurization reactor (R-301), transforming the PbSO₄ into PbO or into PbCO₃ (depending on the reagent used) and obtaining a Na₂SO₄ solution as a reaction by-product. After the reaction is complete, the paste slurry is filtered in a filter press (FL-310) to obtain desulphurized, low moisture paste that is ready for smelting or electrowinning operations. The filtered sodium sulphate solution is collected in a tank (V-311). The solution is then neutralized with electrolyte (R-312), settled (TH-314), and filtered (FL-311).



The clean solution from FL-311 is sent into the crystallization system for the production of anhydrous salt. The dry salt is stored in a silo (SI-421) ready to be sold to the detergent and/or glass industry.

The condensate water from the crystallization system is used for washing operations inside the process. All of the water used inside the process is continuously recirculated.



TECHNICAL DATA

QUALITY OF THE PRODUCTS:

- Metallic lead total metal content > 96% b.w. on d.b.
- Desulphurized paste total metal content > 82% b.w. on d.b.
 moisture < 10% b.w.
 insoluble sulphur content < 0.4% b.w.
- Polypropylene content on dry basis > 97% b.w.
- Na₂SO₄ salt detergent grade
 Na₂SO₄ content > 99.2%
 moisture < 0.02% b.w.
- Gaseous effluents from total dust content < 5 mg/Nm³
 scrubbing system lead content < 0.3 mg/Nm³
 acid mist: absent

PYROMETALLURGICAL DESULPHURIZED PASTE SMELTING IMPROVEMENTS

- Elimination of any sulphur emissions
- Reduction of up to 70% of slag production in the furnaces resulting in a lower loss of lead
- Reduction of chemical use (less than 5% compared with 15% - 20% in undesulphurized paste smelting)
- Increased productivity of furnace (approximately 25%)
- Increased lifespan of refractory (approximately 60%)
- Reduction of energy costs (approximately 25%)

SPECIFIC COMSUMPTIONS

The following average values are referred to 1 metric ton of undrained battery scrap.

Electric energy	65 kWh/t (*)
Fuel	60,000 kcal/t
Desulphurization reagent	NaOH 60 - 90 Kg/t
	or Na ₂ CO ₃ 80 - 120 Kg/t (depending on the sulphur content of batteries)
Water	Negligible
Labor	2 operators/shift (excluding material handling)

(*) for a 20 metric ton per hour size plant

PLANT SIZE

Throughput of up to 50 metric tons/hour of undrained batteries.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

December 3, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Willis M. Kitchen, President
Gulf Coast Recycling, Inc.
1901 North 66th Street
Tampa, Florida 33619

RE: November 26 Teleconference on Status of PSD-FL-215

Dear Mr. Kitchen:

This is intended to briefly summarize our telephone discussion last week with you, George Townsend, and Steve Smallwood regarding the innovative control technology approach for the blast furnace PSD permit.

We discussed the possibility of using an advanced desulfurization technique such as multi-stage repulping and refiltering of lead paste or another process with a design goal of about 98 percent sulfur removal. Gulf Coast Recycling expressed concern that site-specific economic factors be considered and then agreed to research available options and submit a report to the Department by January 2, 1997.

If questions arise please contact me, Al Linero or John Reynolds at (904) 488-1344.

Sincerely,

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

CHF/jr

c: B. Thomas, SWD
J. Campbell, EPCHC
B. Beals, EPA Region IV
S. Smallwood, P.E.

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

Printed on recycled paper

Is your RETURN ADDRESS completed on the reverse side?

Fold at line over top of envelope to the right of the return address

SENDER:

- Complete items 1 through 4 for additional services.
- Complete items 3, and 4a & b.
- 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.

3. Article Addressed to:
 Willis Kitchen, Pres.
 Gulf Coast Recycling
 190 N. 66th Street
 Tampa, FL 33619

4a. Article Number
 P265 659 102

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

7. Date of Delivery
 12-9-96

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

1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

5. Signature (Addressee)
 [Signature]

6. Signature (Agent)
 [Signature]

PS Form 3811, December 1991 *U.S. GPO: 1983-352-714

Thank you for using Return Receipt Service.

DOMESTIC RETURN RECEIPT

P 265 659 102

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

Sent to	Willis Kitchen
Street & Number	Gulf Coast Recyc
Post Office, State, & ZIP Code	Tampa 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	PSD-FI-215 12-4-96

PS Form 3800, April 1995



GULF COAST RECYCLING, INC.

1901 NORTH 66th STREET • TAMPA, FLORIDA 33619
PHONE: (813) 626-6151 FAX: (813) 622-8388

December 2, 1996

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BUREAU OF
AIR REGULATION

Mr. A. A. Linero, P.E.
Administrator, New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

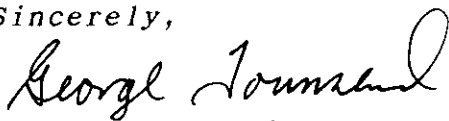
RE: Gulf Coast Recycling, Inc., PSD Application (PSD-FL-215)

Dear Mr. Linero:

Please find enclosed the a hundred eighty (180) day waiver for the above referenced permit.

Should you need additional information or have any questions, please contact George Townsend at (813) 626-6151.

Sincerely,


George Townsend
Director, Regulatory Affairs

pc: Willis M. Kitchen
William B. Taylor
Jerry Campbell, EPC

File:GTA4-478

cc: J. Reynolds, BAR
D. Thomas, SWD
J. Pennington, BAR
E. Carlson, LAKE Eng.
EPA
NPS

180 wmk

WAIVER OF ~~90~~ DAY TIME LIMIT
UNDER SECTION 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. PSD-FL-215

Applicant's Name: Gulf Coast Recycling, Inc.

With regard to the above referenced application, the applicant hereby with full knowledge and understanding of applicant's rights under Section 120.60(2) and 403.0876, Florida Statutes, waives the right to have the application approved or denied by the State of Florida Department of Environmental Protection within the ^{180 wmk} ~~90~~ day time period prescribed by law. Said waiver is made freely and voluntarily by the applicant, with full knowledge, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Protection.

This waiver shall expire on the 3rd day of June 19 97.

The undersigned is authorized to make this waiver on behalf of the applicant.

Willis M. Kitchen
Signature

Willis M. Kitchen, President
Name (Please Type or Print)

Revised December, 1995

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AIR REGULATION



GULF COAST RECYCLING, INC.

1901 NORTH 66th STREET • TAMPA, FLORIDA 33619
PHONE: (813) 626-6151 FAX: (813) 622-8388

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TO: John Reynolds

COMPANY: DEP

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COMMENTS/SPECIAL INSTRUCTIONS

Waiver of 180 day time limit

SENT BY: _____ CONFIRMED BY: _____

Should you have any problems receiving this telecopy, please call (813) 626-6151.

180 work

WAIVER OF ~~90~~ DAY TIME LIMIT
UNDER SECTION 120.60(2) AND 403.0876, FLORIDA STATUTES

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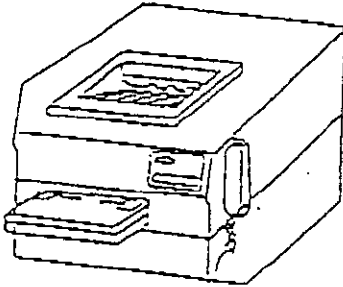
Willis M. Kitchen
Signature

Willis M. Kitchen, President
Name (Please Type or Print)

Revised December, 1995

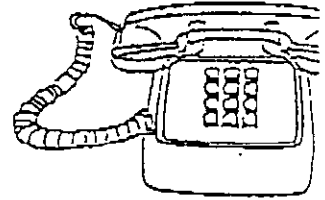


GCR P.1/2
FAX
813-622-8388



BATTERY TECHNOLOGIES

- Recycling Division
- Industrial Battery Company
- Automotive Battery Division



3639 Joy Road
 Columbus, GA 31906
 Telephone (706) 689-0761
 Fax Number (706) 689-0222

Facsimile Cover Sheet

DATE: 10/17/96 Time: 10:15 AM PM

Number of pages (Including Cover Sheet): 2

To: MR JOHN REYNOLDS

From: KRISTEN SPANGLER

Copy: _____

Message: PLEASE CALL IF YOU NEED ANYTHING ELSE. 706 689 0761 x 258

Estimated Annual Operating Cost for Reverb Furnace Scrubber*

Assumptions:

24 hr/day, 365 days/yr operation (8760 hrs)
 Power cost = \$0.02/kW hr
 150 lb/hr sulfur loading to the scrubber
 Caustic/soda ash cost = \$0.0875/lb

Power Cost

2 hp chemical feed pump	\$ 260.00
2 hp chemical feed tank agitator	260.00
32,000 cfm, 150 hp fan	19,600.00
(2) 40 hp recirculation pumps	10,500.00

Chemical Cost

150 lb/hr x 1.45 x 0.0875 x 8760	166,700.00
----------------------------------	------------

<u>Repair and Maintenance</u> , based on 3% of equipment cost	<u>3,900.00</u>
---	-----------------

total \$201,400.00

DEPRECIATION @ 12.5% 16,750.00

DISPOSAL (TREATMENT) COSTS OF DISCHARGE 3,000.00

*Does not include make up water usage.

Does not include oxidation tank nor wastewater treatment costs.

220,650.00

are proving to be very difficult to permit, especially those that accept hazardous substances. In this situation, the scrubbing system is merely a trade-off of pollutants. Air emissions are reduced while hazardous waste is increased at a cost of reduced landfill space. It is, therefore, recommended that this technology not be considered as BACT for this project.

A potential benefit from installing a dry scrubbing system is the removal of other pollutants such as acid gases. However, the final MACT standard for this industry no longer requires the control of HCl.

2.1.2 Wet Scrubbing

Conventional wet limestone scrubbing was selected over the many other wet scrubbing alternatives because it utilizes a cheap, abundant absorbent and is widely applied commercially. As of 1989, over 48 percent of all scrubbing applications in this country employed wet limestone technology. In this process, a limestone slurry solution is injected in a spray tower to absorb SO_2 and form a calcium sulfite/sulfate sludge. The advantage of this system is that, in some situations, it is capable of achieving an overall removal efficiency of more than 90 percent. The industry average for this type of control technology is more on the order of 82 percent. Some of the disadvantages are:

1. A wet effluent is produced that requires additional treatment with complex effluent treatment systems. For every ton of SO_2 removed, 4.25 tons of sludge are produced and, in this particular application, the sludge would likely be classified as hazardous, thereby requiring highly specialized treating, stabilizing, handling, and disposal requirements.
2. Economics and space requirements are not as attractive as for other alternatives.
3. Wet scrubbers are more prone to corrosion problems and may require expensive materials of construction.
4. Historically, wet scrubbers have experienced more operating problems (i.e., scaling, plugging, erosion, and corrosion) and higher maintenance requirements than the alternatives.

Economic Impact Analysis (Wet Scrubbing)

Design Parameters:

Flow Rate:	24,300 acfm
SO ₂ Emission Rate:	520 lbs/hr
Temperature:	154°F
Removal Efficiency:	90%
Expected life of equipment:	10 years

Capital Investment¹:

Control Equipment ² (delivered):	\$ 530,100
Site Preparation/Installation ³ :	<u>\$ 570,000</u>
Total:	\$ 1,100,100

¹ Quote from Electric Controls & Service Co., Inc., Birmingham, AL

² Control equipment includes: spray dryer absorber, associated baghouse, reagent and slurry preparation and handling equipment, solids transfer and recycle equipment, fan/motor, other support equipment/instrumentation, delivery, etc.

³ Installation includes: engineering design, site preparation, erection, field management, startup, etc.

Annual Costs

Operating Labor and Supervision:	\$ 15,000
Maintenance and Repairs:	\$ 20,000
Power & Utilities:	\$ 121,430
Depreciation @ 10%/yr:	\$ 110,010
Disposal Cost:	<u>\$ 2,178,250</u>
Total:	\$ 2,444,690

Annualized SO₂ Removal Calculation

Inlet Emission Rate:	520 lbs/hr
Removal Efficiency:	90%
Total SO ₂ Removed:	468 lbs/hr
Hours of Operation:	8,760 (requested)
Annual Reduction:	2,050 tons/yr
Net Annual Cost:	\$ 2,444,690
Net Ann Cost/Ton SO ₂ Removed:	\$ 1,193/ton
Capital Cost:	\$ 1,100,100
Capital Cost/Ton SO ₂ Removed:	\$ 537/ton

Control Technology Costing Calculations

1. Cost of Wet Scrubbing Reagent (limestone)
 $174 \text{ lbs/hr of limestone} \times \$ 75/\text{ton} \div 2,000 \text{ lbs/ton} \times 8,760 \text{ hrs/yr} = \$ 57,159/\text{yr}$

2. Cost of Handling and Disposal of Hazardous Waste = \$ 250/ton
For every ton of SO₂ removed, 4.25 tons of sludge are generated
 $2,050 \text{ tons of SO}_2 \text{ removed/yr} \times 4.25 \text{ tons of sludge generated} = 8,713 \text{ tons of sludge/yr}$
 $8,713 \text{ tons sludge/yr} \times \$250/\text{ton} = \$ 2,178,250/\text{yr}$

3. Power Requirements for Pollution Control System Booster Fan/Motor, pump/motors, agitators, process requirements, instrumentation, etc. = 165 hp
Conversion Factor = 745.7 watts/hp
 $165 \text{ hp} \times 745.7 \text{ watts/hp} \div 1,000 \text{ watt/kW} = 123 \text{ kW/hr}$
 $123 \text{ kW/hr} \times \$0.045/\text{kW} \times 8,760 \text{ hrs/yr} = \$48,503/\text{yr}$

4. Fresh Water Requirements
 $15 \text{ gallons/min} \times 60 \text{ min/hr} \times 8,760 \text{ hrs/yr} \times \$ 2.00/1000 \text{ gals} = \$ 15,768/\text{yr}$

In addition to the above water costs, there also exists a capacity problem. Gulf Coast's current wastewater disposal permit allows for 20 gallons per minute to be discharged into the City's sewer line which runs from the facility to the main trunk line approximately 1 mile away. This rate of 20 gallons per minute is also the current maximum capacity of the line. In a letter from the City of Tampa concerning this issue (see Appendix C) they state that the capacity of this line is not scheduled to be increased until 1995 at the earliest.

Product Costs

Avg. annual pounds of lead	
produced/sold:	49,415,000 (@ 8,760 hrs/yr)
Annual cost of scrubbing system:	\$ 2,444,690
Cost per pound of lead produced:	\$ 0.0495
Current price received for lead:	\$ 0.30/lb
Percent of gross income from product	
sales spent on scrubber system:	16.49%

The economic impact of this technology is estimated above at \$1,193/ton of SO₂

removed. Due to the relatively low throughput of this facility, it is also estimated that 16.49 percent of gross income from product sales would be spent on the scrubbing system. Based on these costs, it is recommended that this technology not be considered BACT for this particular application.

Energy Impact Analysis (Wet Scrubbing)

The total power requirements were addressed in the economic analysis, as far as determining total annual cost for the operation of the subject pollution control equipment. It has been shown that the electrical requirements will be 123 kW/hrs or 1,077,480 kWh/yr. It has been estimated that the 123 kW electrical demand, for this subject control system, would require an equivalent heat value of 471,785 Btu/hr or approximately 37.7 lbs of coal/hr at 12,500 Btu/lb. Based on these energy requirements, it is recommended that this technology not be considered BACT for this particular application.

Environmental Impact Analysis (Wet Scrubbing)

In conjunction with the additional cost for power, the incremental SO₂ increase associated with the power production phase and the solid waste disposal requirements must also be considered. To provide the 123 kW needed to operate this system, it was estimated above that 165 additional tons of coal would need to be burned at a typical power generating station in the area. Assuming a typical coal sulfur content of 1.2 percent would result in a net annual potential increase in air emissions of 7,920 lbs of SO₂/yr.

It was estimated above that approximately 8,713 tons of sludge would be generated each year. This sludge would likely be classified as hazardous and then treated, handled, and buried as such in an appropriate landfill. The country's landfills are rapidly nearing capacity and new ones are proving to be very difficult to permit, especially those that accept hazardous substances. An additional 15 gallons of wastewater per minute is also required by this technology. As stated earlier, the sewer line is already operating at capacity and it is unknown at this time when, or if, the capacity will be increased. It is, therefore, recommended that this technology not be considered as BACT for this project.

A potential benefit from installing a wet scrubbing system is the removal of other pollutants such as acid gases. However, the final MACT standard for this industry no longer requires the control of HCl.

9-5-96

COMMISSION

DOTTIE BERGER
PHYLLIS BUSANSKY
JOE CHILLURA
CHRIS HART
JIM NORMAN
ED TURANCHIK
SANDRA WILSON



ADMINISTRATIVE OFFICES, LEGAL &
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960
FAX (813) 272-5157

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

EXECUTIVE DIRECTOR

RÔGER P. STEWART

September 5, 1996

CERTIFIED MAIL NO. Z 286 203 769

William B. Taylor, IV
MacFarlane, Ausley, Ferguson
& McMullen
P.O. Box 1531
Tampa, FL 33601

RE: Case No. 95-0728SKW057
Signed Consent Order

Dear Mr. Taylor:

Enclosed please find your client's signed copy of the Consent Order pertaining to the referenced enforcement case. Please note that the date of the Executive Director's signature is the effective date of the Order. All interim and final requirements under the Order are tracked from this date.

Paragraphs 23 and 28 of the Consent Order require submittal of two checks on or before September 19, 1996. One check in the amount of \$1,141.75 should be made payable to the Environmental Protection Commission of Hillsborough County, and another for \$6,500.00 should be made payable to the Hillsborough County Pollution Recovery Fund. The checks may be mailed to my attention at the Air Management Division, EPC, 1410 N. 21st Street, Tampa, FL 33605.

I have also enclosed a summary of the deadlines in the Consent Order for your use. If you have any questions regarding your client's responsibilities as respondent in this matter, please contact me at (813) 272-5530 for additional assistance.

Thank you for your cooperation.

Sincerely,

Kay Strother
Enforcement Coordinator
Air Management Division

Enclosure

cc: Bill Thomas, FDER
Sara Fotopulos, Chief Counsel
George Townsend, Gulf Coast Recycling, Inc.

Gulf Coast Recycling, Inc.
Case #95-0728SKW057
Summary of Consent Order Deadlines

- 09/15/96:
 - Submit sprinkler system plan
 - Report on status of S.C. #31.K. of lead RACT permit
 - Tire wash system complete

- 09/19/96:
 - Implement revised record keeping format for raw material input to blast furnace
 - Submit check to Pollution Recovery Fund for \$6,500
 - Submit check to Environmental Protection Commission for \$1,141.75

- 11/01/96:
 - Submit initial report on implementation of the Project (double liner and leachate collection system for Battery Recycling Building)

- 11/15/96:
 - Complete installation and calibration of elapsed time meters and continuous pressure drop measuring device
 - Complete modifications to lead well tapping doors, duct connection, and installation of strip curtain

- 03/31/97:
 - Desulfurization equipment installed (if it represents BACT)
 - Complete Project (double liner and leachate collection system)

- 04/15/97:
 - Final report on Project due

- 06/23/97:
 - Afterburner installed

Note: GCR is required to conduct quarterly compliance tests of the blast furnace upon authorization by the Director to operate at a process input rate of 6.5 tons per hour.

BEFORE THE
ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY
Complainant,

vs.

Case No. 95-0728SKW057

GULF COAST RECYCLING, INC.
Respondent.

CONSENT ORDER

This Consent Order is made and entered into between the Environmental Protection Commission of Hillsborough County (Commission) and Gulf Coast Recycling, Inc. (GCR), pursuant to Chapter 84-446, Laws of Florida and interagency agreement with the Florida Department of Environmental Protection (DEP).

The Commission alleges the following:

1. GCR is a corporation duly authorized to conduct business in the State of Florida. GCR owns and operates a facility located at 1901 North 66th Street, Tampa, in Hillsborough County, Florida.
2. GCR's business activities include the operation of a secondary lead smelting facility that recycles spent automotive and industrial lead acid batteries to produce lead ingots. The secondary lead smelting facility is a source of air pollution and is subject to various DEP air pollution source permits; the New Source Performance Standards in 40 CFR 60, Subpart L; the National Emission Standards for Hazardous Air Pollutants in 40 CFR 63, Subpart X; federal and state regulations regarding the Prevention of Significant Deterioration (PSD); the lead RACT provisions of Section 62-296.600, F.A.C.; the Florida Administrative Code; and

the Rules of the Commission.

3. From February 1994 to the present, Commission staff has received complaints from citizens living and working adjacent to the GCR facility that allege a nuisance caused by objectionable odors from the GCR facility. Commission inspectors have detected objectionable odors adjacent to the GCR facility, and based on prevailing wind direction and investigation of the surrounding area, staff believes that the source of the odor is the GCR facility. Section 1-3.22.3, Rules of the Commission, prohibits the discharge of any pollutant that causes or contributes to an objectionable odor, and Section 16 of the Act prohibits any emission that causes or reasonably may be expected to cause a nuisance.

4. Based on results from an annual compliance test conducted by GCR on November 1-3, 1994, GCR exceeded the maximum permitted process input rate of 4.58 tons per hour during operation of the blast furnace. Actual process input rates during testing were between 6.14 and 6.56 tons per hour, in violation of Specific Condition No. 15 of Permit No. AO29-173310.

5. Exceedances of the National Ambient Air Quality Standard for lead of 1.5 micrograms per cubic meter were recorded at a monitor located immediately north of the GCR facility during the first two calendar quarters of 1995, and the first calendar quarter of 1996. The quarterly averages were 4.5, 2.2, and 2.8 micrograms per cubic meter, respectively. GCR's secondary lead smelting facility is the primary source of ambient lead at this location. Section 62-272.300(2), F.A.C., and Section 1-3.22.1, Rules of the Commission, prohibit the operation of a source in such a manner as to result in the release of an air pollutant into the atmosphere which causes or contributes to a violation of an ambient air quality standard.

6. In response to the high ambient levels of lead, Commission staff took soil samples in the vicinity of the GCR facility. Five samples exceeded by three times the average background lead concentration, and as such may indicate a significant release as defined by the Environmental Protection Agency's document entitled Guidance for Performing Site Inspections Under CERCLA: Interim Final (EPA/540-R-92-021). Four samples also exceeded the DEP's soil cleanup goals for either residential or industrial land uses.

7. In July 1995, Commission staff informed GCR that, based on a review of daily and monthly records of raw material input to the blast furnace, the records do not fulfill the requirements of Specific Condition No. 19 of Permit No. AO29-173310.

8. GCR met with representatives of the Commission on August 14, 1995, to discuss violations alleged in the Commission's August 1, 1995 Notice of Intent to Initiate Enforcement. GCR believes that the high ambient levels of lead recorded by the monitors adjacent to the GCR facility are caused by fugitive emissions from facility grounds. Possible corrective actions were discussed, as were the allegations regarding soil contamination, process input rate exceedances and record keeping.

9. On August 29, 1995, GCR submitted a letter to the DEP requesting an amendment to the PSD application for the blast furnace, reference DEP File No. 209018, PSD-FL-215. GCR subsequently submitted a revised PSD application on October 10, 1995, that included an increase in the blast furnace process input rate to 6.5 tons per hour.

10. On August 29 and on November 10, 1995, GCR responded to the Commission's request for information regarding corrective actions accomplished by GCR to date and GCR's proposals for additional correction. In addition to the requirements of GCR's lead RACT permit, GCR proposed the following: increased yard sweeping, additional water sprinklers, operation at the permitted process rate pending issuance of a permit or other Commission action, revision of forms to meet record keeping requirements, installation of additional controls required by future rule, and a proposal for limited soil clean up on adjacent property.

11. During annual compliance testing conducted on the blast furnace on December 4-6 and 8, 1995, GCR's process input rate to the blast furnace was 4.68 tons per hour, in violation of the process input rate of 4.58 tons per hour in Specific Condition No. 15 of Permit No. AO29-173310.

12. On March 8, 1996, a representative of the U.S. Environmental Protection Agency (EPA) in conjunction with Commission staff conducted an inspection of the GCR facility. The EPA found that GCR exceeded the process input rate to the blast furnace 27 times in the seven weeks of records reviewed; GCR exceeded the process input rate for the refining kettles on February 26, 1996, and records for this process were only available for the month of February; and GCR exceeded the process rate for slag processing three times between December 28, 1995 and January 23, 1996.

13. Commission staff is working with DEP staff to ensure that any required corrective action to address lead contamination of soils on properties in the vicinity of GCR is included as part of a Consent Final Judgement between GCR and DEP resulting from 13th Judicial Circuit Case No. 93-7339.

WHEREFORE, without admission by GCR to any of the foregoing allegations of violation and for settlement purposes only, GCR and the Commission mutually agree and it is ORDERED:

14. Upon completion of items a) through c) of this paragraph, the Director authorizes GCR to operate the blast furnace at a process input rate to the blast furnace not to exceed 6.5 tons per hour, and further conditioned as provided in paragraph 15. GCR shall maintain records to demonstrate continuous compliance with this limitation, and those records shall be available for inspection by Commission staff. When the DEP issues the PSD permit for the blast furnace, GCR shall comply with the process input rate stated therein.

On or before the deadlines stated herein, GCR shall complete the requirements in accordance with the conditions of amended permit No. AC29-258634 (Lead RACT Permit):

a) On or before September 15, 1996, GCR shall submit a plan for the operation of the facility-wide sprinkler system which shall include, but not be limited to, a map designating the location, coverage of the sprinklers, and a schedule for their operation. The plan shall be subject to the Director's approval. The entire system shall be installed and operational within 30 days of receipt of written approval from the Director. This item shall be considered complete upon Commission staff's verification by inspection that the entire sprinkler system is installed and operational.

b) GCR shall submit a written report to Commission staff on or before September 15, 1996, which addresses the status of the requirements in Specific Condition No. 31.K) of the Lead RACT Permit. The report shall include whether or not DEP approval has been obtained and a schedule for completing the closing and vegetation of the old stormwater pond.

c) On or before September 15, 1996, GCR shall complete the tire wash installation required in Specific Condition No. 31.J) of the Lead RACT Permit.

15. The authorization in paragraph 14 is also contingent upon the following conditions and limitations:

a) GCR shall conduct quarterly compliance tests of the blast furnace during any period of time when the authorization is in effect. The tests shall be conducted in accordance with the

current blast furnace permit (A029-173310) and use the EPA Methods prescribed therein. The quarterly compliance tests shall test emissions of particulates, sulfur oxides, and lead, as well as opacity, and the results of each test shall be submitted to Commission staff as soon as possible, but no later than thirty days from the date of the test. Failure by GCR to comply with permitted emission limitations for the blast furnace, as demonstrated by the quarterly tests, shall result in temporary suspension of the authorization to operate at the elevated process input rate of 6.5 tons per hour, to be reinstated only upon demonstration by GCR, and approval by the Director, that the cause of the failure was immediately corrected and will not recur. Testing shall be conducted using typical raw materials.

b) Any exceedance of the quarterly ambient air quality standard for lead in the vicinity of the facility shall result in temporary suspension of the authorization to operate at the elevated process rate of 6.5 tons per hour, to be reinstated only upon demonstration by GCR and approval by the Director that the exceedance was not caused by operation at the increased process rate of 6.5 tons per hour.

c) Should DEP issue an Intent to Deny, or actually deny the PSD permit, then the authorization to operate at the elevated process input rate of 6.5 tons per hour is automatically revoked.

16. On or before November 15, 1996, GCR shall complete installation and calibration of elapsed time meters and the continuous pressure drop measuring device required in Specific Condition Nos. 41 and 43 of the Lead RACT Permit.

17. On or before November 15, 1996, GCR shall complete the modifications to the lead well tapping doors, the duct connection, and the installation of the strip curtain as required in Specific Condition Nos. 31.B) and C) of the Lead RACT Permit.

18. GCR has contracted with MA Industries, Inc. to manufacture desulfurization equipment (Equipment) to reduce sulfur dioxide emissions. This Equipment, if it complies with the DEP determination of BACT for the pollutant sulfur dioxide, shall be installed and operational by March 31, 1997. If the Equipment does not represent BACT, then GCR shall install appropriate BACT equipment on or before another date which the Executive Director and GCR feel is reasonable. GCR shall pay a penalty of \$250.00 per day for each day of delay for failure to meet this deadline, unless a force majeure event occurs as provided herein. The penalty shall

be payable to the Hillsborough County Pollution Recovery Fund and shall be delivered to the Director immediately upon demand therefor.

19. GCR shall install an afterburner downstream of the blast furnace on or before the MACT deadline of June 23, 1997. The afterburner will be fired with natural gas and will have a set temperature of 1400 degrees. Two gas burners, one primary and one secondary, will be used to maintain the set temperature. GCR shall not seek an extension of the MACT compliance deadline of June 1997 without cause and prior approval from the Director of the Commission. Failure by GCR to meet the deadline for installation of the afterburner shall result in an agreed penalty of \$250 per day for each day of delay. The penalty shall be payable to the Hillsborough County Pollution Recovery Fund and shall be delivered to the Director immediately upon demand therefor.

20. GCR shall continue to use the currently existing and improved sweeper-vacuum three times a day in the production area, and three times a week in the employee parking lots, unless the area is wet from water sprinkling or rainfall.

21. Within fifteen (15) days of the effective date of this Consent Order, GCR shall implement the revised record keeping format for raw material input to the blast furnace previously shown to Commission staff on July 6, 1995.

22. GCR shall cooperate fully with the DEP regarding any required corrective actions regarding contaminated soils in the vicinity of the GCR plant.

23. Within fifteen (15) days of the effective date of this Consent Order, GCR shall deliver to the Director a check payable to the Hillsborough County Pollution Recovery Fund in the amount of six thousand five hundred dollars (\$6,500). This amount constitutes the cash portion of the total settlement amount of forty-two thousand five hundred dollars (\$42,500) ascribed to the above violations.

24. In lieu of payment of the total settlement amount of \$42,500, GCR shall implement an environmentally beneficial project (Project) intended to reduce soil and groundwater contamination from its facility, by implementing controls that go above and beyond the requirements of local, state, and federal regulations. The total cost to GCR of the Project shall be \$89,659.00, and shall consist of the installation of a double liner with leachate collection system in the floor of the new building that will house the new Battery Recycling Equipment. This liner system will consist of two

layers of 40 ml or 60 ml HDPE, with HDPE drainage net between the layers. The liner system will be the same as the liner system required by the EPA for GCR's Group Pile Storage building.

25. GCR shall complete the Project on or before March 31, 1997, and shall submit the following initial and final reports on the Project:

a) The initial report shall be submitted no later than November 1, 1996, and shall provide a statement of GCR's progress to implement the Project. At a minimum, the report shall include the following: a list of equipment ordered or purchased; a description of equipment installed to date; and copies of work orders and invoices for each item completed.

b) The final report shall be submitted no later than April 15, 1997, and shall include the following: a certified statement, signed by an authorized representative of GCR, that the equipment and materials have been purchased and installed in accordance with the requirements of this Consent Order, and that the Project goes above and beyond the requirements of local, state, and federal regulations; and a full accounting of the costs incurred (including material costs, and fees paid to contractors for services associated with the Project).

26. Failure by GCR to document Project expenditures of at least \$89,659.00 shall result in an agreed penalty of one and one-half times the remaining amount (the difference between \$89,659.00 and documented expenditures). This amount shall be payable to the Hillsborough County Pollution Recovery Fund upon demand therefor.

27. Should GCR fail to complete the Project by the March 31, 1997 deadline, the balance of the cash penalty, thirty-six thousand dollars (\$36,000.00), shall become immediately due and payable to the Hillsborough County Pollution Recovery Fund.

28. Within fifteen (15) days of the effective date of this Consent Order, GCR shall deliver to the Director a check payable to the Environmental Protection Commission of Hillsborough County in the amount of one thousand one hundred forty-one dollars and seventy-five cents (\$1,141.75). This amount constitutes the reasonable expenses of the Commission for investigating and resolving the soil contamination issues related to this matter.

29. GCR's activities under this Consent Order shall be performed within the time limits set forth in this Consent Order unless performance is delayed by events which constitute a force majeure. For the purposes of this Consent Order, a force majeure is defined

as any event arising from causes beyond the reasonable control of GCR which could not have been prevented by the exercise of due diligence. Increased costs incurred by GCR in performing any task required herein shall not be considered as constituting a force majeure event unless otherwise approved by the Director. GCR shall provide written notice of an expected delay caused by a force majeure event at least ten days prior to the deadline. The notice shall include an explanation of the steps taken by GCR to avoid the delay and a proposal for a revised schedule. Any revisions to the schedule for performance contained in this Consent Order requires written approval of the Director.

30. If GCR disagrees with any determination of the Director pursuant to this Consent Order, GCR may file a Notice of Appeal and an administrative hearing, pursuant to Section 9 of the Act, will be afforded. If the Director's determination is upheld by the Hearing Officer, Respondent will immediately comply with the affected provision of this Order.

31. The Commission, for and in consideration of the complete and timely performance by GCR of the obligations agreed to in this Consent Order, hereby waives its right to seek judicial imposition of damages or civil penalties against GCR for incidents described in this Order. GCR waives its right to a hearing or judicial review of the terms of this Order, except to the extent of proving compliance with this Order.

32. Entry into this Consent Order does not relieve GCR of the need to comply with other applicable federal, state, or local laws, regulations or ordinances. The entry of this Consent Order does not abrogate the rights of substantially affected persons who are not parties to this Consent Order.

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

34. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction. Failure to comply with the terms of this Consent Order is a violation of Chapter 403, Florida Statutes and of Chapter 84-446, Laws of Florida.

35. GCR is fully aware that a violation of the terms of this Consent Order may subject GCR to judicial imposition of damages, civil penalties of up to \$10,000 per violation, criminal penalties and costs and expenses incurred in litigating this matter.

36. This Consent Order will take effect upon the date of execution by the Director of the Commission and will constitute final agency action by the Commission.

date: 8-29-96

RESPONDENT by:
signature Willis M. Kitchen
print WILLIS M. KITCHEN

(Corporate Seal)

CORPORATE AFFIDAVIT

I, the undersigned (name) WILLIS M. KITCHEN, (title) PRESIDENT of Respondent Gulf Coast Recycling, Inc., and residing at 1901 N. 76th St. Tampa, FLA. 33649, being first sworn, do affirm that I am duly authorized under the articles of incorporation and by-laws of Respondent to bind Respondent by my signature to this Consent Order and that it is my signature which first appears above on behalf of Respondent.

Affiant's signature Willis M. Kitchen
Affiant's printed name WILLIS M. KITCHEN

STATE OF Florida
COUNTY OF Hillsborough

Before me this 29th day of August, 1996, appeared (name) Willis M. Kitchen, who is personally known to me or who produced as identification and who acknowledged to me under oath to be the person who signed the foregoing Affidavit.

NOTARY PUBLIC:
signature Karen Sue Yard
print Karen Sue Yard
My commission expires:



KAREN SUE YARD
My Commission CC398110
Expires Aug. 07, 1998
Bonded by HAI
800-422-1556

Page 10 of 10
Consent Order
Gulf Coast Recycling, Inc.

DONE AND ORDERED this 4th of September,
1996 in Tampa, Florida.

for Roger P. Stewart, Director

Roger P. Stewart, Executive Director
Environmental Protection Commission
of Hillsborough County
1900 Ninth Avenue
Tampa, Florida 33605
(813) 272-5960

kls/gcr.co
08/22/96



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

SEP 3 1996

RECEIVED

SEP 20 1996

BUREAU OF
AIR REGULATION

4APT-AEB

Clair H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Applicability of 40 CFR Part 60, Subpart L and 40 CFR Part 63, Subpart X to a Pot Furnace at Gypsy Mining, Inc., (GMI), Located in Roseland, Florida

Dear Mr. Fancy:

This is to acknowledge receipt of your June 18, 1996, letter, asking for an Environmental Protection Agency (EPA) determination regarding the applicability of the referenced subparts to GMI. After reviewing the information provided in your letter, we have determined that the pot furnace at GMI is neither subject to New Source Performance Standards (NSPS) Subpart L (Standards of Performance for Secondary Lead Smelters) nor 40 CFR Part 63, Subpart X (National Emission Standards for Hazardous Air Pollutants From Secondary Lead Smelters) if the furnace is used exclusively for melting scrap lead that is recast but not further processed.

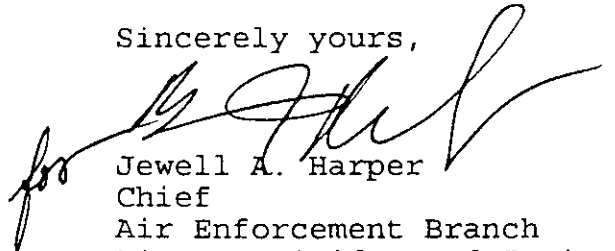
According to your letter, GMI operates two pot furnaces with a maximum charging capacity of 4000 lbs and 500 lbs, respectively. A permit was issued to GMI by the Florida Department of Environmental Protection (FDEP), subjecting the larger of the two pot furnaces to the provisions of Subpart L. In a June 6, 1996, letter, the company contends that this facility was originally permitted incorrectly, subjecting the pot furnace to NSPS Subpart L. Additionally, GMI believes that it is also not subject to 40 CFR Part 63, Subpart X.

The basis for GMI's conclusion that the source is not subject to Subpart L is that: a) it does not recycle or use in any way the lead from batteries, since batteries are not accepted at this facility; b) the facility purchases only pure metallic lead scrap from scrap metal yards; c) the origin of the scrap lead is from roof flashing, cable strips from telephone cables, surplus navy lead bricks, etc.; and d) the pot furnace is used only for remelting lead (heated to a maximum temperature of 1000 °F) and not smelting.

The intent of the Subpart L is to regulate emissions from secondary lead smelting facilities that include pot furnaces of more than 550 lbs charging capacity, blast (cupola) furnaces, and reverberatory furnaces. Therefore, we concur with the company's conclusion that the pot furnace at GMI is not subject to Subpart L, since it only remelts pure metallic lead scrap and is physically not set up for smelting. Additionally, we also concur with GMI's conclusion that the facility is not subject to 40 CFR Part 63, Subpart X, since §63.541 exempts lead smelters, lead refiners, or lead remelters. It would, however, be subject to both Subpart L and Subpart X if any alloying or refining processes are carried on in the pot.

If you have any questions regarding this letter, please contact Mr. Mirza P. Baig of my staff at (404) 347-3555, voice mail extension 4147.

Sincerely yours,



Jewell A. Harper
Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

cc: Alan D. Zahm
Orlando FDEP



GULF COAST RECYCLING, INC.

1901 NORTH 66th STREET • TAMPA, FLORIDA 33619
PHONE: (813) 626-6151 FAX: (813) 622-8388

August 15, 1996

RECEIVED
AUG 19 1996
BUREAU OF
AIR REGULATION

Mr. A. A. Linero, P.E.
Administrator, New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

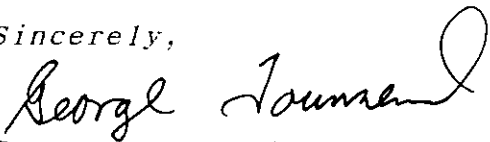
RE: Gulf Coast Recycling, Inc., PSD Application (PSD-FL-215)

Dear Mr. Linero:

Please find enclosed the ninety day waiver for the above referenced permit.

Should you need additional information, please contact George Townsend at (813) 626-6151.

Sincerely,


George Townsend
Director, Regulatory Affairs

pc: Willis M. Kitchen
William B. Taylor
Jerry Campbell, EPC

File:GTA4-461

cc: J. Reynolds, BAR
B. Thomas, SWD
EPA
NPS
J. Pennington, BAR
L. Carlson, Lake Eng.

WAIVER OF 90 DAY TIME LIMIT
UNDER SECTION 120.60(2) AND 403.0876, FLORIDA STATUTES

License (Permit, Certification) Application No. PSD-FL-215 AC 29-209018

Applicant's Name: Gulf Coast Recycling, Inc

With regard to the above referenced application, the applicant hereby with full knowledge and understanding of applicant's rights under Section 120.60(2) and 403.0876, Florida Statutes, waives the right to have the application approved or denied by the State of Florida Department of Environmental Protection within the 90 day time period prescribed by law. Said waiver is made freely and voluntarily by the applicant, with full knowledge, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Protection.

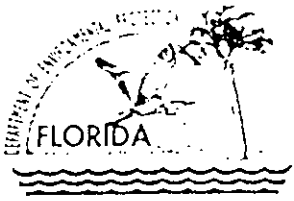
This waiver shall expire on the 5th day of December 1996.

The undersigned is authorized to make this waiver on behalf of the applicant.

Willis M. Kitchen
Signature

WILLIS M. KITCHEN
Name (Please Type or Print)

Revised December, 1995



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

FAX TRANSMITTAL SHEET

TO: GEORGE TOWNSEND

DATE: 8-14-96 FAX PHONE: 813-622-8388

TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE: 2

FROM: JOHN REYNOLDS

DIVISION OF AIR RESOURCES MANAGEMENT

COMMENTS: AL LINERO SAID HE SPOKE WITH YOU YESTERDAY
REGARDING THE WAIVER. AN EXPIRATION DATE
OF DECEMBER 5, 1996 IS PREFERRED.

PHONE: _____

FAX NUMBER: 904/922-6979

If there are any problems with this fax transmittal, please call the above phone number.

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Virginia B. Wetherell
Secretary

July 25, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Willis M. Kitchen, President
Gulf Coast Recycling, Inc.
1901 North 66th Street
Tampa, Florida 33619

Re: Request for PSD Permit Processing as Innovative Control Technology

Dear Mr. Kitchen:

Today we received your July 22 letter requesting that the Department process your current PSD permit application (PSD-FL-215) under the provisions of Rule 212.400(3)(f)4., Florida Administrative Code. For reasons explained below, we do not believe that this rule will apply as you have described.

The innovative control technology rule provides for a temporary exclusion from increment consumption where a source's construction or modification would cause an exceedance of the maximum allowable increase in the ambient air concentration of a pollutant. This situation does not apply here because the innovative control technology must be a technology that has not been adequately demonstrated in practice. It must have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice, or comparable reduction at lower cost or energy consumption. These requirements are spelled out in 40 CFR 52.21(b)(19). The desulfurization process does not qualify as an innovative technology since it has been adequately demonstrated in practice and is not capable of achieving greater emissions reduction than any control system in current practice, such as a scrubber. Even a conventional scrubber would not qualify as innovative control technology since it has been adequately demonstrated.

The Department does not agree with your statement that BACT has been determined to be a minimum of 75% reduction of the SO₂ emission rate. As we stated in our July 16 letter, the Department is now in the process of gathering the information needed for determining BACT. The Environmental Protection Commission of Hillsborough County has contributed to and will continue to comment on the Department's BACT determination. However, the Department will have the main role in this regard.

If there are questions about the above, please contact me or John Reynolds at (904) 488-1344.

Sincerely,

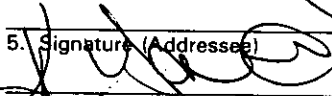
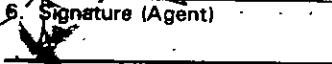
A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/JR

c: B. Thomas, SWD J. Campbell, EPCHC J. Harper, EPA J. Bunyak, NPS

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3. Article Addressed to: Willis M. Kitchen, Pres. Gulf Coast Recycling, Inc. 1901 W. 66th St. Tampa, FL 33619		4a. Article Number P 339 251 127	
5. Signature (Addressee) 		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent) 		7. Date of Delivery 7-31-96	
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PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

P 339 251 127

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Receipt for Certified Mail

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Postage	\$
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Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	PSD Pmt Arec. 7-29-96 as ICT

P/S Form 3800, April 1995



GULF COAST RECYCLING, INC.

1901 NORTH 66th STREET • TAMPA, FLORIDA 33619
PHONE: (813) 626-6151 FAX: (813) 622-8388

RECEIVED
JUL 25 1996
BUREAU OF
AIR REGULATION

July 22, 1996

Mr. A. A. Linero, P.E.
Administrator, New Source Review Section
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Gulf Coast Recycling, Inc., PSD Application (PSD-FL-215)

Dear Mr. Linero:

Gulf Coast Recycling, Inc. has pending before the Florida Department of Environmental Protection a PSD Construction Permit Application for the blast furnace operation at its Tampa facility. The company has contracted with M. A. Industries to manufacture equipment which will substantially reduce the sulfur content of the blast furnace feed stock and consequently the potential sulfur dioxide emissions from the blast furnace. As a result of our own independent investigation, including discussions with M. A. Industries personnel, we represent that this technology will result in a minimum of 66% reduction in emissions applying a potential emission rate of 520 Lbs./Hour. Enclosed is a statement from M. A. Industries which supports this representation.

The 66% reduction factor does not presently meet the control efficiency sought by the Hillsborough County Environmental Protection Commission for BACT. After discussions with its representative, Jerry Campbell, Gulf Coast Recycling submits this request to have the PSD Construction Permit Application processed under the innovative technology provision of rule 62.212.400(3)(f) 4. F.A.C. During the four years commencing from installation of the M. A. equipment, Gulf Coast will use its best

efforts to achieve BACT which has been determined to be a minimum of 75% reduction of the aforementioned potential sulfur dioxide emission rate. We are confident that this reduction will be achievable prior to the four year expiration date.

The emissions from the facility shall otherwise be in compliance with provisions of subsection 4.

Please process the company's PSD Construction Permit Application accordingly. Should you need additional information, please contact George Townsend at (813) 626-6151.

Sincerely,

Willis M. Kitchen

Willis M. Kitchen
President

pc: William B. Taylor
Jerry Campbell, EPC

File:GTA4-459



M. A. INDUSTRIES, INC.

Quality Products Through Creative Research

July 17, 1996

JUL 22 1996

Mr. George Townsend
Gulf Coast Recycling
1901 North 66th Street
Tampa, FL 33619

Dear Mr. Townsend,

Gulf Coast Recycling, Inc. (GCR) is currently undergoing PSD review for the Blast Furnace Operation. In conjunction with the imposed sulfur dioxide emission reduction, M.A. Industries will provide GCR with a 41 DS Battery Recycling System with a desulphurization process.

The M.A. 41DS Battery Recycling System will substantially reduce the sulfur content of the blast furnace feed stock. The desulfurization process will, at a minimum, remove sixty-six percent (66%) of the sulfur introduced into the system thereby, reducing sulfur dioxide emissions from the blast furnace. This reduction should be achievable within ninety days of start-up using the desulfurized feed stock. As the remaining non-desulfurized materials are processed in the blast furnace and only the desulfurized material is processed, a seventy five (75%) reduction in the potential emissions should be achieved.

Sincerely,

M.A. INDUSTRIES, INC.
Engineering Division

Michael E. Stout
Vice President

FAXED 7/17/96



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

July 16, 1996

CERTIFIED MAIL- RETURN RECEIPT REQUESTED

Mr. Willis M. Kitchen, President
Gulf Coast Recycling, Inc.
1901 North 66th Street
Tampa, Florida 33619

RE: Construction Permit Application PSD-FL-215

Dear Mr. Kitchen:

We received your June 24 letter in response to our June 11 letter requesting the additional information needed to complete the referenced application. The response appears to be a restatement of Gulf Coast Recycling's position set forth in your March 15 letter. We were unable to find anything new in it except for your request that the Department process the permit based on the information submitted to date.

In view of the history of this application, we will attempt to do this by completing the research and data gathering ourselves without requesting anything further from Gulf Coast. However, please be aware that the application will not be deemed complete until we have the needed information in hand. At that time we will notify you that the application is complete and that the permit processing clock has started.

In the meantime, if questions arise you may contact me or John Reynolds at (904) 488-1344.

Sincerely,

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

AAL/JR

c: B. Thomas, SWD
L. Deken, EPCHC
J. Harper, EPA
J. Bunyak, NPS
S. Smallwood, ERM-South

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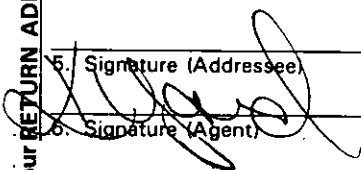
Consult postmaster for fee.

3. Article Addressed to:
 Willis M. Kitchen, Pres.
 Gulf Coast Recycling
 1901 North 60th St
 Tampa, FL 33619

4a. Article Number
 P 339 251 128

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

7. Date of Delivery
 7-75-96

5. Signature (Addressee)


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

6. Signature (Agent)

Thank you for using Return Receipt Service.

P 339 251 128

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
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Sent to Willis Kitchen	
Street & Number Gulf Coast Recyng	
Post Office, State, & ZIP Code Tampa, 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 PSD-FL-215 7-16-96	

PS Form 3800, April 1995



GULF COAST RECYCLING, INC.

1901 NORTH 66th STREET • TAMPA, FLORIDA 33619
PHONE: (813) 626-6151 FAX: (813) 622-8388

June 24, 1996

RECEIVED

JUN 27 1996

BUREAU OF
AIR REGULATION

A. A. Linero, P.E., Administrator
New Source Review Section
Florida Dept. of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Construction Permit Application (PSD-FL-215)

Dear Mr. Linero:

As a follow-up to our meeting on March 28, 1996, and your letter dated June 11, 1996, we are submitting our responses and positions to the issues in your letter dated February 8, 1996.

1) The availability of SO₂ emission data from other facilities prior to the installation of desulfurization is extremely limited. Each facility utilizes unique configurations in their use of furnace technology, exhaust routing schemes, and additional control technology. Many facilities were built with desulfurization initially, others co-mingle all process emissions (from all furnaces, refining kettles, etc.) through one stack, and still others also employ scrubbers. Each of these scenarios makes the requested data virtually unavailable. Additional economic analysis data has been submitted to Hillsborough County and Gulf Coast believes their concerns regarding the use of desulfurization for SO₂ reductions have now been adequately addressed.

2) Concerning the selection of PM baseline data, a summary of Annual Operating Reports was submitted with the March 15 letter indicating which two years were chosen as representative. The years 1983-84 were chosen because they were the two years prior to the installation of the new blast furnace. It was, and still is, Gulf Coast's position that PSD does not apply to PM since the difference between the current allowable annual emission rate of 20.4 tons per year and the baseline rate of 9.51 tons per year, which is the average of the 1983-84 data, is less than the 15 tons per year PSD threshold. However, since these two years also happen to be the two years in the summary table with the highest emissions (which would result in a higher baseline rate), they were questioned as being representative.

Gulf Coast does not feel and other consecutive two-year period would be any more representative than 1983-4. Therefore, to alleviate the representativeness concerns mentioned above, one could use the average of the six years of data prior to the

Mr. Linero
June 24, 1996
Page Two

installation of the furnace (1978-84, minus 1979 due to no AOR). This average is 5.89 tons per year. The difference between the current allowable rate of 20.4 and 5.89 is 14.51 tons per year, still less than the PSD significance level of 15.0 tons per year. This supports Gulf Coast's position that PSD is not applicable to PM. Please note that the referenced six year period includes an annual rate of 1.84 tons per year, which is clearly not representative, and that 20.4 tons per year is Gulf Coast's current permitted rate.

3) It remains Gulf Coast's position that by installing the proposed afterburner, which will reduce VOC emissions to below the applicable threshold, the exhaustive control technology review associated with PSD and LAER (depending on which time frame is required to be looked at due to the Tampa area being designated as attainment for ozone since the furnace installation) can be avoided. During the March 28 meeting Steve Smallwood concurred that, although the DEP is choosing at this time not to implement the recent EPA policy on the subject, it has been his experience as past Chief of the Bureau of Air Quality Management and Director of the Division of Air Resources Management, that this scenario is allowed under the current DEP air rules, and has been used by applicants many times.

Gulf Coast requests that the DEP issue the PSD permit based on the information submitted to-date. Please contact me at (813)626-6151 if you have any questions or require additional information.

Sincerely,

GULF COAST RECYCLING, INC.

Willis M. Kitchen

Willis M. Kitchen
President

cc: Steve Smallwood, P.E.
ERM-South, Tallahassee

cc: *J. Reynolds, BAR*
J. Campbell, HCEPC
B. Thomas
EPA
NPS

C. Carlson, Lake Eng.
J. Pennington, BAR