



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 4  
 ATLANTA FEDERAL CENTER  
 61 FORSYTH STREET, SW  
 ATLANTA, GEORGIA 30303-8909

DEC 15 1997

*EPA qu. Jan 6  
 X: Larry } pls advise  
 claim } of significance  
 # of 14.*

*Michael,  
 please follow-up  
 with class  
 Howard  
 12/19*

4APT-ARB

Mr. Howard L. Rhodes, Director  
 Department of Environmental Protection  
 Division of Air Resources Management  
 Mail Station 5500  
 2600 Blair Stone Road  
 Tallahassee, Florida 32399-2400

RECEIVED

DEC 18 1997

DIVISION OF AIR  
 RESOURCES MANAGEMENT

*Response to  
 request I sent  
 EPA to comment  
 on Broward  
 plan to burn  
 pharmaceuticals  
 etc. Al*

SUBJ: North and South Broward Resource Recovery Facilities

Dear Mr. Rhodes:

This letter is in response to your agency correspondence, dated October 7, 1997, concerning the burning of used oil filters, tires, and pharmaceutical waste at the North Broward and South Broward Resource Recovery Facilities. The municipal waste combustion facilities in North Broward County and South Broward County each consist of three mass burn units, each having a capacity to burn 750 tons per day of municipal solid waste (MSW). These facilities are subject to the municipal waste combustor (MWC) requirements of the implementation plan for the State of Florida for existing MWC sources. The State of Florida plan (which was noticed for approval in the Federal Register on November 13, 1997) implements the emission guidelines for MWC sources under the federal requirements of 40 C.F.R. part 60, subpart Cb. The burning of used oil filters and tires is referenced in subpart Cb. For the portion of this question concerning pharmaceutical waste, the federal rule for Hospital/Medical/Infectious Waste Incinerator (HMIWI) sources, promulgated on September 15, 1997 at 40 C.F.R. part 60, subparts Ce and Ec, provides the basis for our response.

Definitions and Applicability

This response is derived directly from specific portions of the federal rules for solid waste incinerators, MWC units, and HMIWI units. As a reference, the definitions of "solid waste," "MSW," "HMIWI," "hospital waste," "medical/infectious waste," "pathological waste," "co-fired combustor," and the applicability criteria from the HMIWI rule are included in this section.

Definitions (§§60.51, 60.51b, 60.51c)

"Solid waste" means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

"MSW" or "municipal-type solid waste" means household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which includes but is not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include (1) yard waste, (2) refuse-derived fuel, and (3) motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in § 60.50b(g).

"HMIWI" means any device that combusts any amount of hospital waste and/or medical/infectious waste.

"Hospital waste" means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

"Medical/infectious waste" means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in part 261 of this chapter; household waste, as defined in §261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment; and domestic sewage materials identified in §261.4(a)(1) of this chapter.

(1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes

from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

(iii) Items saturated and/or dripping with human blood; or

(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also include in this category.

(4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

(5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

(6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

(7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

"Pathological waste" means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

"Co-fired combustor" means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a

fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

#### Applicability (§60.50c)

(a) Except as provided in paragraphs (b) through (h) of this section, the affected facility to which this subpart applies is each individual hospital/medical/infectious waste incinerator (HMIWI) for which construction is commenced after June 20, 1996 or for which modification is commenced after March 16, 1998.

(b) A combustor is not subject to this subpart during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in §60.51c) is burned, provided the owner or operator of the combustor:

- (1) Notifies the Administrator of an exemption claim; and
- (2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste and/or chemotherapeutic waste is burned.

(c) Any co-fired combustor (defined in §60.51c) is not subject to this subpart if the owner or operator of the co-fired combustor:

- (1) Notifies the Administrator of an exemption claim;
- (2) Provides an estimate of the relative amounts of hospital waste, medical/infectious waste, and other fuels and wastes to be combusted; and
- (3) Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(d) Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

(e) Any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb of this part (standards or guidelines for certain municipal waste combustors) is not subject to this subpart.

(f) Any pyrolysis unit (defined in §60.51c) is not subject to this subpart.

(g) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this subpart.

(h) Physical or operational changes made to an existing HMIWI solely for the purpose of complying with emission guidelines under subpart Ce are not considered a modification and do not result in an existing HMIWI becoming

subject to this subpart.

Applicability to North Broward and South Broward Facilities

A definition for "refuse" is not provided in any rule proposal or standard for incinerators or MWC facilities (under 40 C.F.R. part 60, subparts Cb, E, Ea, or Eb). Tires are included in the definition of MSW, but used oil filters are not. However, waste types not specifically addressed in the rule are addressed in the rule preamble. On page 65392 of the December 19, 1995, Federal Register notice for the MWC rule, it states that:

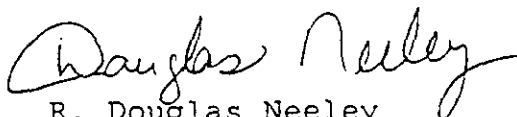
[a]lthough these wastes are not MSW, they can be intermixed with MSW and can be combusted in MWC plants. The regulations do not prohibit their combustion.

The North Broward and South Broward Resource Recovery Facilities are both subject to the requirements of 40 C.F.R. part 60, subpart Cb. Based on the definitions and applicability presented, we can conclude that any MWC subject to Subpart Cb, Ea, or Eb is exempt from Subparts Ce and Ec, regardless of the amount of hospital waste or medical/infectious waste burned. Therefore, the North Broward and South Broward Facilities are exempt from the entire HMIWI rule, although certain pharmaceutical wastes can be classified as hospital waste or medical/infectious waste. Based on this conclusion, the burning of pharmaceutical waste would not subject the North Broward and South Broward facilities to additional requirements.

However, for your information, not all MWC units are subject to Subparts Cb, Ea, or Eb because these subparts only affect MWC units larger than 250 tons per day. Any MWC unit which is smaller than 250 tons per day and burns more than 10 percent hospital waste and medical/infectious waste is subject to Subpart Ce or Ec. Any MWC unit which is smaller than 250 tons per day and burns 10 percent or less hospital waste and medical/infectious waste is exempt from most of the provisions of Subparts Ce and Ec, but must notify the EPA Administrator of an exemption claim and keep records of wastes burned. These units burning 10 percent or less hospital waste and medical/infectious waste are called "co-fired combustors."

Thank you for the opportunity to respond to your question. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 562-9127.

Sincerely,

A handwritten signature in cursive script that reads "Douglas Neeley". The signature is written in black ink and is positioned above the typed name.

R. Douglas Neeley

Chief

Air and Radiation Technology Branch

Air, Pesticides and Toxics

Management Division

cc: Walt Stevenson, OAQPS

AL



**Wheelabrator South Broward Inc.**

A Waste Management Company  
4400 South State Road 7  
Ft. Lauderdale, FL 33314

Phone 954.581.6606  
Fax 954.581.6706

**Thomas D. Kirk**  
General Manager

December 4, 1997

VIA FAX 904-922-6979

Mr. Clair H. Fancy  
Bureau Chief  
Bureau of Air Regulation  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 34399-2400

**RECEIVED**

DEC 12 1997

BUREAU OF  
AIR REGULATION

Subject: Request For Clarification of Permitted Fuels at the  
North Broward & South Broward Resource Recovery Facilities

Dear Mr. Fancy:

This letter serves as a cover letter to our September 17, 1997 submittal addressing the above captioned topic. The referenced submittal is our formal application for a revision to our existing permit. As stated in the application, please note that the changes proposed will not increase our annual throughput nor create an increase in our current emissions.

Should you have any questions or require any additional information relating to the application, please contact Carol Eaton, Senior Environmental Engineer in our Corporate Offices at 800-682-0026. We appreciate your cooperation in this matter.

Very truly yours,

*Carol Hopson*  
*For*

Thomas D. Kirk  
General Manager

971204.TDK.ch

AL



**Wheelabrator Environmental Systems Inc.**

A Waste Management Company  
4 Liberty Lane West  
Hampton, NH 03842

Phone 603.929.3000

November 13, 1997

Mr. Clair H. Fancy  
Bureau Chief  
Bureau of Air Regulation  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 34399-2400

Re: North and South Broward Resource Recovery Facilities

Dear Mr. Fancy:

Wheelabrator's North and South Broward waste-to-energy plants submitted a request for clarification of the permitted fuels in a letter dated September 17, 1997. We have since received a response from the FDEP (attached).

We would like to meet with you at your earliest convenience to discuss this issue. Steve Smallwood, Thomas Kirk and I are available to meet December 3, 4 and December 8 (early afternoon) or December 9.

Please let me know which date is convenient for you and we will make the necessary travel arrangements. I can be reached at (800) 682-0026 ext. 3462 or directly at (603) 929-3462. I look forward to hearing from you soon.

Sincerely,

Carol A. Eaton, P.E.  
Senior Environmental Engineer

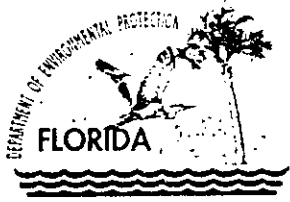
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BUREAU OF  
AIR REGULATION

cc383





# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

October 10, 1997

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Thomas Kirk, Plant Manager  
Wheelabrator North and South Broward, Inc.  
4400 South State Road 7  
Fort Lauderdale, Florida 33314

Re: Permitted Fuels at North and South  
Broward Resource Recovery Facilities

Dear Mr. Kirk:

The Department has reviewed your letter dated September 17, 1997 requesting clarification of permitted fuels at the referenced facilities. Our understanding of our meeting of April 22, 1997 was that you would submit a permit application if you anticipated any change to your waste stream.

The PSD permit for this facility was issued by EPA while the Site Certification was issued by the Siting Board. The certification and permit now allow facility to burn "refuse, such as garbage and trash (as defined at 17-701, F.A.C.)." We consider it inappropriate to make any alteration to the permit terms or conditions, or to specify or clarify that additional materials can be burned, without conforming to the proper public notice processes.

If you wish for the permit and site certification terms to be altered, please submit the correct application, including documentation that the change is or is not a modification under Rule 62-210.200, F.A.C. and we will review the matter as expeditiously as practicable.

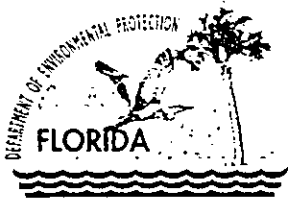
For your information, the Department received a permit request in 1993 from Bay Resource Management Center to conduct a performance test to burn similar material at its Panama City. The purpose was to gather data to determine if burning such materials resulted in emissions increases. The Department issued an Intent on the matter, but the company decided not to proceed with the tests. At our meeting of April 22, we advised Wheelabrator that we would accept tests from similar facilities together with a technical analysis sealed by a professional engineer, in lieu of performance tests at the Broward facilities.

If you have any questions regarding this matter, please call me or Mr. Ed Svec at 850/488-1344.

Sincerely,

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

cc: Brian Beals, EPA  
Buck Oven, DEP  
Pat Comer, DEP  
Mary Jean Yon, DEP



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

October 7, 1997

Mr. Brian Beals, Section Chief  
Air, Radiation Technology Branch  
Preconstruction/HAP Section  
U.S. EPA - Region IV  
61 Forsyth Street  
Atlanta, Georgia 30303

Re: Wheelabrator North and South Broward County Resource Recovery Facilities  
PSD-FL 112 and PSD-FL-105

Dear Mr. Beals:

Attached is a request from Wheelabrator, Broward County, to clarify whether pharmaceuticals, cosmetics, controlled substances, and similar wastes can be burned under the terms of the PSD permits issued by EPA.

The permits describe the units as municipal solid waste incinerators. The same permits allow the burning of refuse such as garbage and trash but not hazardous waste, grease, scum, grit screenings or sewage sludge. Wheelabrator does not consider public notice to be required in making this clarification.

Please provide any comments as soon as possible. If you have any questions, please call me at (850)488-1344.

Sincerely,

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

AAL/kt

enclosures

original  
in 112



**Wheelabrator South Broward Inc.**

A Waste Management Company  
4400 South State Road 7  
Ft. Lauderdale, FL 33314

Phone 954.581.6606  
Fax 954.581.6705

**Thomas D. Kirk**  
General Manager

September 17, 1997

Clair H. Fancy  
Bureau Chief  
Bureau of Air Regulation  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 34399-2400

**RECEIVED**

**SEP 19 1997**

**BUREAU OF  
AIR REGULATION**

RE: REQUEST FOR CLARIFICATION  
OF PERMITTED FUELS AT THE  
NORTH BROWARD and SOUTH BROWARD  
RESOURCE RECOVERY FACILITIES

Dear Mr. Fancy:

As you will recall, when we met with you and other representatives of the Florida Department of Environmental Protection ("FDEP") on April 22, 1997, we agreed to submit a request for clarification of the permitted fuels at the Wheelabrator North Broward ("WNB") and Wheelabrator South Broward ("WSB") facilities (collectively, "Wheelabrator"). As promised, this request includes a description of the fuels about which we are seeking clarification -- specifically, pharmaceutical wastes, used oil filters, and tires -- as well as a discussion of the handling practices which will be utilized by the facilities to ensure that the processing of these fuels will have no adverse impact on the facilities' air emissions. As we explained at our April 22, 1997 meeting, it is our strong belief that pharmaceutical wastes, used oil filters and tires fall clearly within the meaning of "refuse" as used in the facilities' permits and, therefore, are currently permitted fuels at each facility. With this letter, we are simply seeking FDEP's concurrence that pharmaceutical wastes, used oil filters, and tires are acceptable fuels at WSB and WNB.

**I. Background**

Wheelabrator's North Broward and South Broward waste-to-energy plants were both licensed during the mid to late 1980s under the Florida Power Plant Siting Act and the U.S. EPA's Prevention of Significant Deterioration (PSD) preconstruction review air permitting program. During the late 1980s to early 1990s, the state's site certification was updated to reflect the requirements of the final EPA PSD air permits, which were issued after the state site certifications.

The two mass burn plants are approximately the same size and design. Each plant consists of three mass burn refuse fired boilers. Each of the units at WSB is permitted to burn up to 863 tons per day (115% rated capacity) with a maximum heat input of 323.6 mmBtu/hr. Each of the units at WNB is permitted to burn up to 806 tons per day (100% rated capacity) with a maximum heat input of 302.5 mmBtu/hr. The average heat input of the refuse burned in each boiler at each plant is assumed to be 4500 Btu/pound.

WSB and WNB were designed and constructed with state-of-the-art air pollution control equipment (APCE) in accordance with Best Available Control Technology. Acid gases (SO<sub>2</sub> and HCl), particulate matter, metals, and dioxin/furans are controlled by spray dryer absorbers followed by fabric filters. Both facilities operate Continuous Emissions Monitoring Systems (CEMS) to demonstrate compliance with the emissions limitations defined in their operating permits. Stack gas opacity, sulfur dioxide, nitrous oxides, carbon monoxide and oxygen concentrations are measured continuously. Detailed records are kept and the monitoring results are reported to regulatory agencies on a quarterly basis. Additional monitoring devices include devices which record final combustion chamber temperature, steam production and flue gas temperature at the exit of the acid gas removal system.

## II. Permitted Fuels Identified in Facilities' Site Certifications and PSD Permits

Pursuant to the provisions in both the PSD permits and the site certifications, both plants are permitted to burn "refuse, such as garbage and trash, (as defined in 17-701, FAC)", but not "hazardous waste (as defined in 17-730, FAC)", nor grease, scum, grit screenings or sewage sludge. In addition, a limited amount of distillate fuel oil or natural gas, may be used in the startup burners.

There is no definition of "refuse" in the Florida statutes or regulations, nor is "refuse" a defined term under federal air regulations. In addition, the permits themselves do not specifically define "refuse." However, notwithstanding the lack of a definition of refuse, the general and specific conditions in the PSD permits and the site certifications do establish the following criteria to be used by the facilities in determining which types of material may be burned at WNB and WSB:

- (1) The plants may burn only materials that are refuse, but may not burn hazardous waste (as defined in 17-730, FAC), nor grease, scum, grit screenings or sewage sludge, without first obtaining a modification of the permits/certifications by the FDEP Bureau of Air Regulation ("BAR") to allow this type of refuse to be burned. It is significant to note that by specifically excluding these materials, FDEP implicitly acknowledged that "refuse" is a broad enough term to include materials such as these which are not typically considered garbage or trash.

- (2) The plants may not burn refuse at a rate that is greater than that specified in the permits/certifications, nor at a rate that would result in a heat release to any of the boilers that would be greater than the maximum Btu/hr heat input specified in the permits/certifications, without first obtaining a modification of the permits/certifications by the FDEP BAR to allow higher processing rates.
- (3) The plants may not burn any material of a quality and quantity that would cause a violation of the specific air pollutant emission limits included in the permits/certifications, without first obtaining a modification of the permits/certifications by the FDEP BAR to revise the affected emission limits to a level that would not be violated as a result of burning that type and amount of refuse.
- (4) The plants' owner may not make nonexempt physical or operational changes to any unit at either plant that would result in a significant net emissions increase of an EPA regulated air pollutant, without first obtaining a modification of the permits/certifications by the FDEP BAR to limit the net emissions increase of each EPA regulated air pollutant on a plant wide basis to a level that would be below the significant net emissions increase level, or obtain a new PSD permit including a new BACT determination for the affected unit(s), before making such physical or operational changes.

Thus, the PSD permits and site certifications do not detail precisely what fuels the facility can accept. Rather, they provide a framework for evaluating the various materials available to be processed. Within this framework, changes in the quality and quantity of the materials processed are allowed without the need for permit modifications or amendments, provided that: (a) such changes do not result in the facility burning materials that are not "refuse" or in burning any of the types of wastes that are specifically prohibited by the permits/certifications; (b) the material is not burned in a way that results in exceeding the maximum materials throughput, heat input, or emission limits in the permits/certifications; and (c) the burning of such materials does not require any significant physical or operational changes to be made at the plant.

### **III. Clarification Sought Regarding Permitted Fuels**

Given the framework identified above, it is clear that the WNB and WSB can accept pharmaceutical wastes, used oil filters and tires within the limits of the existing permits and certifications. Specifically, these wastes are all "refuse" and are not specifically prohibited by the permits/certifications. In addition, accepting such refuse will not result in an exceedance of the maximum materials throughput, heat input, or applicable emissions limits. Finally, acceptance of pharmaceutical wastes, used oil filters, and tires does not require any significant physical or operation changes to be made at the plants.

With this request for clarification, WNB and WSB seek FDEP's concurrence that

pharmaceutical wastes, used oil filters, and tires are acceptable fuels under the facilities' existing permits and certifications. Each of these fuels is discussed below. In addition, FDEP's authority to review and respond to this request is also addressed.

**A. Agency's Authority**

Pursuant to the general conditions of the EPA PSD permits, "any proposed changes in the quantity or quality of materials processed that would result in new or increased emissions or ambient air quality impacts must be reported to EPA. If appropriate, modifications to the permit may then be made by EPA to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations herein."

Because the Florida DEP currently has full delegation of the U.S. EPA's PSD preconstruction review air permitting program in Florida, such notice is to be provided to FDEP BAR. The determination of whether a particular change in the materials processed requires any kind of change to the permit or the air provisions of the site certification may be made by the BAR. If any changes to the conditions of the PSD permit or the site certification are needed, the BAR with the approval of the Secretary of the FDEP, may make such changes.

**B. Used Oil Filters**

Both WNB and WSB currently accept used oil filters. In its June 3, 1992 guidance memorandum, FDEP stated:

We feel that the technology and pollution control equipment at the waste-to-energy facility, coupled with the operator training for mixing the waste as it is fed into the combustors is enough to assure that a "slug" of any one type of waste is avoided, and gives us reasonable assurance that used oil filters will not present an environmental problem due to emissions in these facilities. In any event, incineration with metal recovery is preferable to landfilling.

We feel, as a 'rule of thumb,' that if the facility can reasonably certify or demonstrate that the amount of filters being accepted (or any other specific waste for that matter) is not over two to three times the normal average amount of that type of waste in the overall waste stream, then no permit or certification modifications need be made.

Because both facilities accept used oil filters well within the parameters of this guidance memo, no modifications to the permits or certifications are necessary.

**C. Tires**

Both WNB and WSB also currently accept tires. In its April 16, 1992 guidance memo, FDEP stated:

“Tires (shredded and whole) may be processed/fed to these units up to 3%, by weight, of the permitted capacity without any change in the existing permits.”

WNB and WSB accept tires well within this 3% by weight limit and, therefore, no modifications to the permits or certifications are necessary.

**D. Pharmaceutical Wastes**

Refuse identified in the category of pharmaceutical waste includes the following:

- expired pharmaceuticals (Rx)
- over the counter medicines, treatments, and supplements (OTC)
- health and beauty products (HB)
- off spec, recalled, or out of date Rx, OTC, and HB
- small amounts of bulk containers of Rx, OTC, and HB
- packaging material including glass, plastic, paper for Rx, OTC and HB
- controlled substances confiscated by law enforcement agencies

With the exception of the controlled substances, most of these types of pharmaceutical wastes are now part of the overall waste stream. In many cases, these pharmaceutical wastes are put into the trash pickup dumpsters, and collected and disposed of as trash. There is an increasing demand to handle these wastes differently, however, because of concerns about the ultimate disposal of this material. Specifically, many pharmaceutical manufacturers and wholesale distributors want this type of waste taken directly from their warehouse or store to an incinerator and destroyed, to prevent it from being stolen and sold on the black market.

These types of refuse are different than trash and garbage not in their physical natures, but usually in their point of origin and the means of delivering the waste material to the plants. Specifically, these materials are expected to be delivered in segregated loads and, in most cases, will originate at various pharmaceutical manufacturers and wholesale distributors.

The following table, which is based on the information provided in the site certification applications, provides an annual breakdown of the components of the refuse currently accepted at the facility. Please note that the overall breakdown of the trash and garbage, as reported in the applications, typically delivered to the plants is: Garbage (55-60%), Processable trash, as received (17-20%), Processable trash, requiring size reduction (4-7%), Non-processable trash (16-21%). The

amount of trash and garbage delivered to the plants on a monthly basis varies from about 80-110% of the annual average rate, and the weekly and daily variations are greater than that. The typical components that make up the trash and garbage vary by similar amounts. Indeed, it is not unusual for the amount of the major components to vary by 5%. The plant addresses this kind of variation in the quality and quantity of this material by handling it in a way that allows the material to be properly incinerated while staying within all of the permit limits.

**TABLE 1**  
**PHYSICAL COMPOSITION - GARBAGE AND**  
**PROCESSABLE TRASH FRACTIONS**  
**(As Received Basis)**

Component	Percent by Weight		
	Garbage	Trash	Combined
Paper, Cardboard	39-47	9-11	27-36
Plastics	8-9	3-10	5-7
Rubber, Tires	--	0-9	0-3
Textiles, Rags, Carpeting, and Mattresses	2-3	1	2
Food Waste	9	NA	5-6
Garden Waste, Stumps, Leaves and Brush	17-21	36-45	22-24
Wood	2-3	28-35	8-13
Glass	7-12	--	5-7
Metals	6	--	4-5
Rock, Brick	--	--	0-15
Other	--	5-7	2
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>

-- means no data available  
 NA - not applicable

The primary components of the pharmaceutical wastes that Wheelabrator plans to burn are



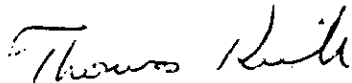
Clair H. Fancy  
September 17, 1997  
Page 7

paper, cardboard and plastics, which already represent 32-43% of the garbage and trash currently accepted at the facilities. In addition, the pharmaceutical wastes Wheelabrator plans to burn will be less than 5% of the total amount of material burned which is consistent with the typical 5% variation in the major components of the fuel as discussed above. Given the strong similarity between the components of the pharmaceutical wastes and the components of Wheelabrator's existing fuel, there will be no significant change in heat input to the boilers.

Finally, the addition of pharmaceutical wastes as a fuel at the WNB and WSB facilities will not impact the air emissions at either facility. As discussed in detail in Appendix A, the pharmaceutical waste will be introduced into the refuse fuel pit and managed to ensure appropriate fuel blending and complete and efficient combustion. Accordingly, neither facility will have any significant increases in emissions and both facilities will have no problem meeting their permitted emission limits.

Wheelabrator believes that the refuse described above -- used oil filters, tires, and pharmaceutical wastes -- are permitted fuels under the facilities' existing site certifications and PSD permits. As discussed above, the nature of these materials, as well as the handling practices that will be utilized by the facilities for all segregated refuse, ensure that processing these materials at WNB and WSB will have no adverse impact on the facilities' air emissions. Accordingly, we look forward to receiving FDEP's concurrence that used oil filters, tires and pharmaceutical wastes are permitted fuels at both facilities.

Sincerely,



Thomas Kirk  
Plant Manager  
Wheelabrator North Broward, Inc.  
Wheelabrator South Broward, Inc.

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s:\king\swk225.wpd

cc: JACK Chisolm, OGC  
Doug Beason, OGC  
Pat Comer, OGC  
Jeff Brown, OGC  
Chip Collette, OGC  
Buck Owen, PPS  
Mike Hewett, DARM

## **APPENDIX A**

### **Addendum to Operation and Contingency Plans**

APPENDIX A

1.0 RESOURCE RECOVERY FACILITY OPERATIONAL AND CONTINGENCY PLAN

- Page 16A -

1.12 Handling Procedure for Segregated Refuse

The South Broward Resource Recovery Facility, aka Wheelabrator South Broward, Inc., is permitted to "...utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) as its fuel." It is not permitted to accept hazardous waste, grease, scum, grit screenings or sewer sludge.

1.12.1 Requirements for Acceptance

Since Wheelabrator South Broward must ensure that safeguards are in place to identify and reject hazardous wastes and other refuse not permitted for acceptance, a procedure has been developed for handling loads of segregated refuse for which the facility requires the completion of a Waste Profile Form. The facility currently requires that a Waste Profile Form be completed for the following materials:

PHARMACEUTICAL WASTE  
TIRES  
USED OIL FILTERS

- \* Generator Certifications: The generator of the load of segregated refuse must certify that the material to be burned is not hazardous. This certification is normally accomplished with the completion of a Waste Profile Form.
- \* Waste Profile Form: This form is to be completed by the Generator to indicate the specific nature of the waste requiring disposal and to certify that the waste is non-hazardous. If deemed necessary by Wheelabrator management personnel, an MSDS and/or TCLP analysis may be required in addition to the Waste Profile Form. Once the Waste Profile Form has been completed and received by the facility, Wheelabrator South Broward shall make a determination to confirm that the waste is non-hazardous, that it is refuse allowed by facility permits and to determine that combustion of the waste will not impair the operations of the facility. This review may take several days, but less if the waste has been previously reviewed.

1.0 RESOURCE RECOVERY FACILITY OPERATIONAL AND CONTINGENCY PLAN

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1.12.2 Operational Controls - Tipping Floor Disposal

At the scheduled time of delivery, the customer or its representative will stop at the facility scale house to be weighed and notify the scale house attendant of the load of segregated refuse. The scale house attendant will in turn notify the tipping floor attendant and the facility operations control room. The scale house attendant shall then direct the load of segregated refuse to the tipping floor. The customer will be responsible for unloading the waste onto the tipping floor under the direction of the tipping floor attendant.

The tipping floor attendant will perform a detailed inspection of the entire load. Any unacceptable waste will be re-loaded onto the customer's truck for removal off-site at the customer's sole expense. A Screening Report for Segregated Refuse form shall be completed for all segregated refuse. The decision to reject any waste will be made at the sole discretion of the facility's management.

Provided the waste has passed inspection, the tipping floor attendant shall notify the refuse crane operator that a load of segregated refuse is to be dumped and inspected and will convey any special mixing or handling instructions. The refuse crane operator shall in turn confirm acceptance with the control room, if the load is to be fed directly into a boiler and may affect the operation of the boiler.

The tipping floor attendant shall instruct the tipping floor loader operator to push the inspected load into the pit where it is mixed with other wastes by one of the two refuse cranes. Subsequently, the combined mixed waste is picked by one of two refuse cranes and deposited into the feed hopper of an on-line boiler. Material in the feed hopper is gravity fed into the furnace.

1.12.3 Operational Controls - Refuse Hopper Disposal

For segregated refuse that must be handled in a manner to assure destruction, such as controlled substances, the following procedures will be utilized by the facility.

At the scheduled time of delivery, the customer or its representative will stop at the facility scale house to be weighed and notify the scale house attendant of the assured destruction load. The scale house attendant in turn shall notify the Support Staff Supervisor, or his designee and the facility operations control room. The scale house attendant shall then direct the assured load to the plant elevator access.

1.0 RESOURCE RECOVERY FACILITY OPERATIONAL AND CONTINGENCY PLAN

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The Support Staff Supervisor, or his designee, shall meet the truck at the plant elevator access. The customer shall be directed to, and be responsible for, unloading the assured destruction load under the supervision of the Support Staff Supervisor, or his designee. The Support Staff Supervisor, or his designee, shall perform an inspection of the entire load. Any unacceptable waste will be re-loaded onto the customer's truck for removal off-site at the customer's sole expense. A Screening Report for Segregated Refuse form shall be completed for all assured destruction loads. The decision to reject any waste will be made at the sole discretion of the facility's management.

The Support Staff Supervisor, or his designee, shall notify the crane operator and the shift supervisor that an assured destruction load is to be disposed of via the feed chute hoppers. Under the supervision of the Support Staff Supervisor, or his designee, the assured destruction load shall be taken, via plant elevator, to elevation 78 where the load shall be directly fed into an on-line boiler's refuse hopper.

1.12.4 Disposal

In the furnace, refuse is burned at a temperature exceeding 1800 deg F, to assure complete destruction of the waste and living organisms within the waste. The remaining ash no longer has the physical or chemical identity of the original product and represents complete destruction of the original product. The ash is landfilled at the ash monofill located adjacent to the facility.

1.0 RESOURCE RECOVERY FACILITY OPERATIONAL AND CONTINGENCY PLAN

- Page 16A -

1.12 Handling Procedure for Segregated Refuse

The North Broward Resource Recovery Facility, aka Wheelabrator North Broward, Inc., is permitted to "...utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) as its fuel." It is not permitted to accept hazardous waste, grease, scum, grit screenings or sewer sludge.

1.12.1 Requirements for Acceptance

Since Wheelabrator North Broward must ensure that safeguards are in place to identify and reject hazardous wastes and other refuse not permitted for acceptance, a procedure has been developed for handling loads of segregated refuse for which the facility requires the completion of a Waste Profile Form. The facility currently requires that a Waste Profile Form be completed for the following materials:

PHARMACEUTICAL WASTE  
TIRES  
USED OIL FILTERS

- \* Generator Certifications: The generator of the load of segregated refuse must certify that the material to be burned is not hazardous. This certification is normally accomplished with the completion of a Waste Profile Form.
- \* Waste Profile Form: This form is to be completed by the Generator to indicate the specific nature of the waste requiring disposal and to certify that the waste is non-hazardous. If deemed necessary by Wheelabrator management personnel, an MSDS and/or TCLP analysis may be required in addition to the Waste Profile Form. Once the Waste Profile Form has been completed and received by the facility, Wheelabrator North Broward shall make a determination to confirm that the waste is non-hazardous, that it is refuse allowed by facility permits and to determine that combustion of the waste will not impair the operations of the facility. This review may take several days, but less if the waste has been previously reviewed.

1.0 RESOURCE RECOVERY FACILITY OPERATIONAL AND CONTINGENCY PLAN

- Page 16B -

1.12.2 Operational Controls - Tipping Floor Disposal

At the scheduled time of delivery, the customer or its representative will stop at the facility scale house to be weighed and notify the scale house attendant of the load of segregated refuse. The scale house attendant will in turn notify the tipping floor attendant and the facility operations control room. The scale house attendant shall then direct the load of segregated refuse to the tipping floor. The customer will be responsible for unloading the waste onto the tipping floor under the direction of the tipping floor attendant.

The tipping floor attendant will perform a detailed inspection of the entire load. Any unacceptable waste will be re-loaded onto the customer's truck for removal off-site at the customer's sole expense. A Screening Report for Segregated Refuse form shall be completed for all segregated refuse. The decision to reject any waste will be made at the sole discretion of the facility's management.

Provided the waste has passed inspection, the tipping floor attendant shall notify the refuse crane operator that a load of segregated refuse is to be dumped and inspected and will convey any special mixing or handling instructions. The refuse crane operator shall in turn confirm acceptance with the control room, if the load is to be fed directly into a boiler and may affect the operation of the boiler.

The tipping floor attendant shall instruct the tipping floor loader operator to push the inspected load into the pit where it is mixed with other wastes by one of the two refuse cranes. Subsequently, the combined mixed waste is picked by one of two refuse cranes and deposited into the feed hopper of an on-line boiler. Material in the feed hopper is gravity fed into the furnace.

1.12.3 Operational Controls - Refuse Hopper Disposal

For segregated refuse that must be handled in a manner to assure destruction, such as controlled substances, the following procedures will be utilized by the facility.

At the scheduled time of delivery, the customer or its representative will stop at the facility scale house to be weighed and notify the scale house attendant of the assured destruction load. The scale house attendant in turn shall notify the Shift Supervisor, or his designee and the facility operations control room. The scale house attendant shall then direct the assured load to the plant elevator access.

1.0 RESOURCE RECOVERY FACILITY OPERATIONAL AND CONTINGENCY PLAN

- Page 16C -

The Shift Supervisor, or his designee, shall meet the truck at the plant elevator access. The customer shall be directed to, and be responsible for, unloading the assured destruction load under the supervision of the Shift Supervisor, or his designee. The Shift Supervisor, or his designee, shall perform an inspection of the entire load. Any unacceptable waste will be re-loaded onto the customer's truck for removal off-site at the customer's sole expense. A Screening Report for Segregated Refuse form shall be completed for all assured destruction loads. The decision to reject any waste will be made at the sole discretion of the facility's management.

The Shift Supervisor, or his designee, shall notify the crane operator and the shift supervisor that an assured destruction load is to be disposed of via the feed chute hoppers. Under the supervision of the Shift Supervisor, or his designee, the assured destruction load shall be taken, via plant elevator, to elevation 78 where the load shall be directly fed into an on-line boiler's refuse hopper.

1.12.4 Disposal

In the furnace, refuse is burned at a temperature exceeding 1800 deg F, to assure complete destruction of the waste and living organisms within the waste. The remaining ash no longer has the physical or chemical identity of the original product and represents complete destruction of the original product. The ash is landfilled at the ash monofill located adjacent to the facility.



# WASTE PROFILE

PROFILE NO. \_\_\_\_\_

APPROVALS:	NAME	DATE
YES	NO	
RESCO		
YES	NO	
WESI LEGAL:		
YES	NO	
CWM		

## GENERAL INFORMATION

1. GENERATOR NAME: \_\_\_\_\_ Generator USEPA ID: \_\_\_\_\_
2. Generator Address: \_\_\_\_\_ Billing Address:  Same \_\_\_\_\_
3. Technical Contact/Phone: \_\_\_\_\_ Billing Contact/Phone: \_\_\_\_\_

## PROPERTIES AND COMPOSITION

5. Process Generating Waste: \_\_\_\_\_
6. Waste Name: \_\_\_\_\_
- 7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes  No
- B. Identify All USEPA listed and characteristic waste code numbers (D, F, K, P, U): \_\_\_\_\_
- State Waste Codes: \_\_\_\_\_
8. Physical State @ 70°F: A. Solid  Liquid  Both  B. Single Layer  Multilayer  C. Free liquid range \_\_\_\_\_
- 9A. pH: Range \_\_\_\_\_ to \_\_\_\_\_ or Not applicable  B. Strong Odor ; describe \_\_\_\_\_
10. Liquid Flash Point: <73°F  73-99°F  100-139°F  40-199°F  ≥200°F  N.A.  Closed Cup  Open Cup

## 11. CHEMICAL COMPOSITION: List ALL constituents (including halogenated organics) present in any concentration and forward available analysis.

Constituents	Range	Units	Constituents	Range	Units
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

12. OTHER: PCBs if yes, concentration \_\_\_\_\_ ppm, PCBs regulated by 40 CFR 761 . Pyrophoric  Explosive   
 Radioactive  Benzene if yes, concentration \_\_\_\_\_ ppm. Shock Sensitive  Oxidizer  Carcinogen   
 Infectious  Other \_\_\_\_\_
13. If the waste is subject to the land ban and meets the treatment standards, check here: \_\_\_\_\_, and supply analytical results where applicable. \_\_\_\_\_

## SHIPPING INFORMATION

14. Packaging: Bulk Solid  Bulk Liquid  Drum  Type/Size: \_\_\_\_\_ Other: \_\_\_\_\_
15. ANTICIPATED ANNUAL VOLUME: \_\_\_\_\_ Units: \_\_\_\_\_ Other: \_\_\_\_\_

## SAMPLING INFORMATION

- 16a. Sample source (drum, lagoon, pond, tank, vat, ect.) \_\_\_\_\_  
 Date Sampled: \_\_\_\_\_ Sampler's Name/Company: \_\_\_\_\_
- 16b. Generator's Agent Supervising Sampling: \_\_\_\_\_ 17.  No sample required (see instructions).

## GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261-Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

Signature \_\_\_\_\_ Printed (or typed) name and title \_\_\_\_\_ Date \_\_\_\_\_

WHEELABRATOR BROWARD

Screening Report for Segregated Refuse

DATE: \_\_\_\_\_

TIME ARRIVED: \_\_\_\_\_

TIME DEPARTED: \_\_\_\_\_

INSPECTED BY: \_\_\_\_\_  
(print)

TYPE OF SCREENING:

Floor \_\_\_\_\_

Hopper \_\_\_\_\_

TRUCK INSPECTED: Company \_\_\_\_\_

Driver \_\_\_\_\_

Truck Number \_\_\_\_\_  
(if applicable)

ACCEPTED: \_\_\_\_\_

REJECTED: \_\_\_\_\_

TYPE OF MATERIAL OBSERVED:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COMMENTS:

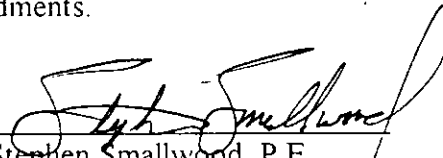
\_\_\_\_\_  
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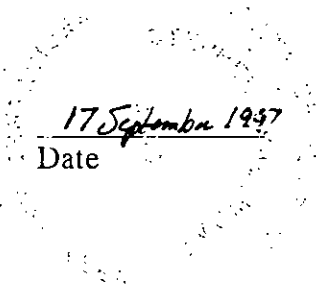
(SCREEN1)

**PROFESSIONAL ENGINEER  
CERTIFICATION**

I have reviewed the letter report to Clair H. Fancy, P.E., Chief, FDEP Bureau of Air Regulation, from Thomas Kirk, Plant Manager, Wheelabrator North Broward, Inc. and Wheelabrator South Broward, Inc., dated September 17, 1997, entitled REQUEST FOR CLARIFICATION OF PERMITTED FUELS AT THE NORTH BROWARD and SOUTH BROWARD RESOURCE RECOVERY FACILITIES.

After reasonable inquiry, I have concluded that: (a) the additional fuels proposed to be burned at the two facilities are "refuse", but they are not any of the types of wastes that are specifically prohibited by permits/certification; (b) the material would not be burned in a way that results in exceeding the maximum materials throughputs, heat inputs or emission limits; and (c) the burning of the materials proposed does not require any significant physical or operational changes to be made. Therefore, under the current permits, the materials proposed are allowed without the need for permit modifications or amendments.

  
Stephen Smallwood, P.E.  
Florida Registration No. 26630

  
17 September 1997  
Date