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[www.gbbinc.com](http://www.gbbinc.com)

<http://www.guamsolidwastereceiver.org/>

**TO:** Gershman, Bratton, Lund, Seader & Manning  
**FROM:** Chace Anderson, Receiver Operations Manager  
**DATE:** June 1, 2008  
**RE: RECYCLING FACILITIES SITE VISITS**

**I. Summary**

Gershman, Brickner & Bratton, Inc. (GBB) the court appointed receiver for the Solid Waste Management Division has requested to meet with Recycling Facility owners and private and public entities on Guam to get a better understanding of the recycling activities on island. Site visit appointments and short meetings were requested from recycling facilities listed on The Guam Environmental Protection Agency's Recycling Guide.

There are fifteen (15) recycling companies listed on the Guam Recycling Guide. We have visited (11) eleven recycling companies/facilities and conducted short meetings. Only (2) two companies were unavailable due to conflict schedules. These are the (South Pacific Environmental) SPE, which collects Hazardous Waste and Waste Management, which collects Medical Waste. There are also some recycling companies that are not included on GEPA's Recycling Guide however; they are in operation accepting recyclable waste such as metallic waste and green waste for composting. The Solid Waste Management Division (SWMD) will continue to coordinate with GEPA on updating the list of permitted recycling facilities.

Some issues presented were high shipping rates when the volume of shipment was below ten (10) overseas containers at a time to Asia or the US mainland. There are also issues in regards to limited storage capacity and limited volume of recyclable materials coming in from the community. Most recyclers will be willing to expand their operations should there be a substantial amount of recycling activities, which may increase the volume of recyclable materials on island.

**II. Recycling Facilities (GEPA List)**

**Metals (Ferrous and Non-Ferrous)**

Balli Steel Guam, LLC  
FSM Recycling  
Island Scrap Yard (same owner as FSM)  
Fermosa Recycling (Rising Year Int'l Guam Co.)

Triple Star Recycling  
Xiong's Family, Inc.

**Tires**

Tomson, LLC

**Hazardous Waste**

Unitek Environmental

South Pacific Environmental

**Waste Oil**  
GRESKO

**Cooking Oil and Grease**  
Lucky One Pumping

**Corrugated Cardboard**  
Mr. Rubbishman (Guahan  
Waste Recycling LLC)

**Paper, Cardboard (flat)**  
Guam Transport and Warehouse

### III. **SITE VISIT REPORT**

#### **A. TOMSON, LLC - Tire Processing Facility**

Owner: Soo Ja Park  
May 15, 2008  
9:00 – 10:00 am

Tomson, LLC is the sole tire processing listed on the GEPA's recycling guide. Their facility is located at Route 15 back road to Andersen AFB, at the IBC Compound. Operational hours are from 8:00am to 5:00pm Monday – Friday. This facility permitted can store up to 10,000 pieces of tires. TOMSON Customer base includes:

- Navy installation
- United Tire
- Lujan Tire
- EZ Tire

#### **Processing of Tires:**

1. TOMSON receives tires from customers for shredding/processing.
2. Out of the \$3.00 disposal fee, \$2.50 is paid out to TOMSON to process tires by other commercial tire companies, including the navy.
3. Steel belted tires are separated from non steel belted tires.
4. Machines rip steel belts out of the tires and company sells them to scrap metal.
5. Tires are processed /shredded. Shredded tires are approximately sold at \$30.00/ton
6. Shredded tires are shipped off to Japan and Korea for recycling in a 40 ft. container.
7. TOMSON LLC can shred up to 1,400-1,500 tires a week.
8. 450 commercial tires = 1 ton

It was mentioned that they could accept the tires free from GovGuam if government would drop the tires off if room for storage is available. They are also willing to take in collected tires piled up at the transfer stations.

#### **Issues/Concern:**

1. Bigger space to accommodate tire storage and processing/operations.
2. Should there be a bigger space to relocate the operations, TOMSON, LLC may be willing to bring in larger machines and/or processing line.
3. No power/water in current facility.
4. A generator is currently powering operations.

**Future Expansion:**

TOMSON, LLC is also planning to collect and bale plastics for recycling. They brought in the machinery for the processing of plastics materials but have not used them.



**TIRE SHREDDER**

**B. GUAM TRANSPORT AND WAREHOUSE (GT&W)**

Paper Collection

(includes other paper products, phonebooks and flat cardboard)

Owner: James Honda

May 15, 2007

10:00 – 11:00 am

GT&W is located at the Harmon Industrial Park and is open from 8:00am – 5:00pm Weekdays and 8:00am – 12:00pm Saturday. It is located near Mr. Rubbishman's OCC facility (not reviewed in this memo because it has already been discussed.) GTW accepts commonly used paper products free of charge. Paper products (fiber) are dropped off, shredded, baled, and shipped to Taiwan. They do not buy paper products from residents or private businesses. They accept all kinds of paper products including textbooks, phone books, and flat cardboards. GT&W also offers paper shredding services, trucking and warehousing. They are the only one on island who recycles non-OCC paper.

Equipment available: 1 baler and shredder; Currently company ships approximately 2 to 5 containers a month of paper to Taiwan. Usual daily operations for paper recycling is up to 1,500 lbs/day

**Future Expansion:**

GT&W may expand current recycling operations should there be considerable amount of paper to be recycled.

### **C. UNITEK ENVIRONMENTAL**

Hazardous Waste Collection and Disposal

Owner: Leroy Moore

May 15, 2007

1:00 -2:00pm

Unitek Environmental is an Environmental Service firm that basically deals with Hazardous Waste Disposal. They are located at Agat and operation hours are from 7am – 4pm Monday – Friday. Hazardous wastes collected are shipped back to the US mainland (Long Beach) for processing. The line they ship with is Matson. Used oil is delivered to the Cabras Power Plant. Their company also handles materials from the military installation here on island and was responsible for the clean up of PCB's in Coco's Island (located at the south end of Guam) worth \$1 million dollars. Shipping costs for some Hazardous liquids/materials are approximately \$12,000.00.

There was a Hazardous Waste Facility built for the commercial Port but is not currently permitted due to it sitting at a 100 ft flood plain. The Guam Port Authority needs to submit a maintenance and mitigation plan to the Guam EPA for them to issue a permit for the facility.

Unitek has been previously awarded the contract for the HASSO! Guam Collection event in 2005 worth \$200,000 for the whole year for three(three) collection sites. Mr. Moore made mention that the last HASSO! Event they collected 4,000 NiCad batteries.

### **D. GRESCO (Guam Refinery and Environmental Services Company)**

Waste Oil

Vice President/General Manager: David Taitano

May 15, 2007

2:30- 3:30 pm

GRESCO facility is located in Agat and is open form 8:00 am -5:00pm weekdays. They collect, recycle and refine used oil. Their customer base includes auto shops, and other environmental companies. Residents are welcome to drop off their used/waste oil and are free of charge for the first five (5) gallons.

GRESCO is the only company on island listed on the Guam Recycling Guide that recycles used oil. Other companies that collect waste oil rely on GPA to take in the product. They usually pick up the used oil, clean it up and sell it to the power plant and they burn it as a fuel or we sell it to an asphalt plant or vessel or boiler.

The facility capacity is 250 thousand gallons of which 166 thousand is used for storage capacity. GRESCO also test what they collect to identify hazardous elements. On the last HASSO! Guam conducted by Guam EPA GRESCO collected 3,600 – 4,000 gallons of waste oil form residents who came to drop off their hazardous waste.

The process of recycling their waste oil is approximately 6 days. Water will evaporate from the oil and sediments settle at the bottom of their container on the

first three days. The next 2-3 days are dedicated to run what has recovered in their system.

### **GRESKO REFINERY PLANT**



GRESKO refinery plant containers are numbered according to the processing method they use.

### **E. Northern Hardfill (Operated by Primo's Heavy Equipment)**

Green Waste/Wood Waste and Construction Demolition Debris

Owner: Felix Quan

May 16, 2008

9:30 -10:30 am

The Northern Hardfill is privately owned and operated by Primo's Heavy Equipment. It is located at Yigo (Rt. 15 – Back road to AAFB) and Operates from 8:00am – 5:00pm Weekdays and Saturdays and closed from 12pm – 1pm (Weekdays and Saturdays) and Sundays. It receives green waste, construction, demolition debris from residents, private companies, military and other government projects. Current disposal fee for green waste is \$4.00 per cubic yard.

The green waste and wood waste are grinded and turned into mulch. The mulch/woodchips are given free to residents. Their equipment, a horizontal grinder, is regularly maintained. They do however, stop operations during heavy and continuous rain.

**Future Expansion:** It is expected that their operations will expand upon securing the lease of the lot next to the Dededo Transfer Station under the Chamorro Land Trust.

### **Northern Hardfill**



Green Waste Site



Horizontal Grinder used at the Northern hardfill to grind wood waste and turn it into mulch.



Horizontal grinder while in operations (tree trunk being fed to the machine for grinding)



Construction and Demolition Site (Northern Hardfill)

**F. PYRAMIND RECYCLING/FERMOSA RECYCLING  
(Rising Year International Guam Co.)**

Non- Ferrous Metals, Aluminum, Steel Cans, Plastic Bottles,

Owner: Eric Hsueh

May 16, 2008

3:30 – 4:30pm

Pyramid Recycling is a 3<sup>rd</sup> generation family owned business. The owner Mr. Hsueh has two (2) scrap yards one located at the Harmon Industrial Park (Pyramid Recycling) which accepts plastic bottles, aluminum, copper, brass and computers. He stated that collection and recycling of plastic bottles is not feasible because there is no “bottle bill” program in place.

*(Note: Guam EPA states that their current permit to accept plastic is pending approval)*

Pyramid recycling approximately ships off 6 – 8 containers a month. As a family owned business, they have scrap yards in Taiwan and China. They were also contracted by the Anderson Airforce Base solid waste contractor to ship out collected aluminum and plastic. Their customer base ranges from private contractors and commercial haulers.

Mr. Hsueh states that is not feasible to put a metal shredder on island, since there is not enough volume of metal to shred, no incentive on island and shipping of the equipment may cost more. In Taiwan, there is three (3) shredders and only one in operation.

**FERMOSA** recycling also owned by Mr. Hsueh, is located in Harmon over a five (5) acre property. This facility accepts metallic waste. After metals are sorted and separated it is loaded in containers. Tires coming form the vehicles are given back to the contractor/client. Guam currently requires customs officers to be present during the loading of the materials (metallic waste) to check of stolen items such as (brass plates etc.).

Mr. Hsueh also mentioned that if white goods (refrigerator, washing machine etc) are taken apart prior to brining in their recycling facility, the scrap recovered then becomes a commodity rather than being it being junk.

**PYRAMID RECYCLING CENTER**



Scale at Pyramid Recycling



Baled wires ready for shipping



Baled plastic bottles from Anderson Air Force Base (AAFB) as per Mr. Eric it took AAFB 2 years to collect so much plastic bottles at AAFB



Baled and Shrink wrapped aluminum cans ready for shipping.

# FERMOSA RECYCLING



Scrap Metal Inventory



Heavy Equipment sorting metals at Scrap yard

## **H. XIONG'S FAMILY**

Batteries, Metallic Waste, White Goods, Computers

Operations Manager: Jay – R

**May 21, 2008**

**2:00 pm**

Xiong's Family Recycling Center, is located in Harmon and has a seven (7) day operation and two (2) shift schedules. The first shift is from 8am -5pm, during the first shift, the facility receives from customers ferrous and non-ferrous materials. The second shift is from 9pm – 6pm and covers internal operations. They currently have a staff of 30 people.

Recent local public laws have prescribed scrap metal dealers not to buy any scrap metals after 5:00 pm. Xiong's recycling center does not have any metal shredder. They have stated that the only metal shredder they know is the one located next to the Dededo Transfer station and it is reported to be inoperable.

The facility sells their recyclable materials to the Asian region (Korea, India, Malaysia, Vietnam, Taiwan, and China). They have recently filled two (2) containers of scrap metal and are preparing the shipment to China. They currently deal with CTSI Logistics for their cargo transportation.

Residents pay a certain amount to dispose of their white goods. Prices usually range form \$10 – \$20 dollars per piece. Similar to Pyramid recycling, they would however buy form customers if white goods were dismantled.

**FUTURE EXPANSION:** They are trying to acquire a lease on the lot next to the transfer site to expand the facilities operations.

*(Note: Lot described is the same as described by Felix Quan, General Manager of Primo's)*



**Xiongs Scrap yard (back)**



**Weight scale at Xiong's Recycling Facility**



**Xiong's Scrap yard (inside)**

### **I. FSM/ ISLA RECYCLING**

Metallic Waste, White Goods, Batteries, Aluminum, Copper, Brass

Owner: Jae Yoon Cha

Mr. John – translator and co –owner of Isla Recycling

**May 21, 2008**

**3:00 pm**

FSM Recycling is located at the Harmon Industrial Park and is a family owned business. They also own a scrap yard in Bello Road, Barrigada (ISLA Recycling) where they accept computers and white goods. They are currently shipping scrap metal to Korea where the prices of metals are high. Other markets for their materials include China and Taiwan.

Recently they have shipped off 3,480 tons of scrap metal to Korea. They have sold scrap metal to Balli steel due to the shortage of tons Balli Steel needs to have in order to ship by way of barge. They have stated that they can ship almost everything to Korea for recycling except for car scrap. They also stated that one of Guam's biggest problems is the storage for tires. Importers of shipments make deals with recyclers to lessen cost of shipment since most importers pay for the ship to come in and out even if the ship is empty.

FSM has recently bought equipments to support the collection and recycling of scrap metals, they have an equipment to cut and put scrap metal on a knuckle boon truck. They also have equipment that can pick up scrap metals on the spot. They have done area clean up for government project.

It was mentioned that qualifications for projects must include the proper equipment and regular maintenance of the machines.

### **K. TRIPLE STAR RECYCLING**

Metallic Waste, White Goods

**May 22, 2008**

**10:00 am**

Triple Star Recycling is located in Harmon. They are open 7 days a week but only with one shift. Weekend usually cover internal operations. They accept scrap metal, aluminum, copper, brass from businesses and residents. It was mentioned that some of the tires they collected from junk vehicles were disposed at Ordot Dump.

Containers filled with scrap metals are usually shipped off two (2) to four (4) times a week.



**Triple Star Recycling Facility**

### **J. BALLI STEEL**

Batteries, Metallic Waste, White Goods, Tires (500pcs. Storage capacity)

General Manager: Joe Sicad

May 22, 2008

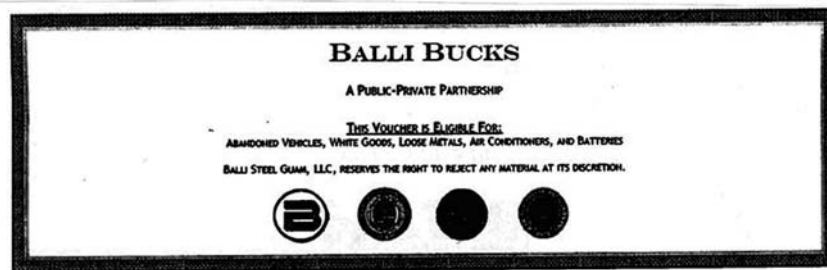
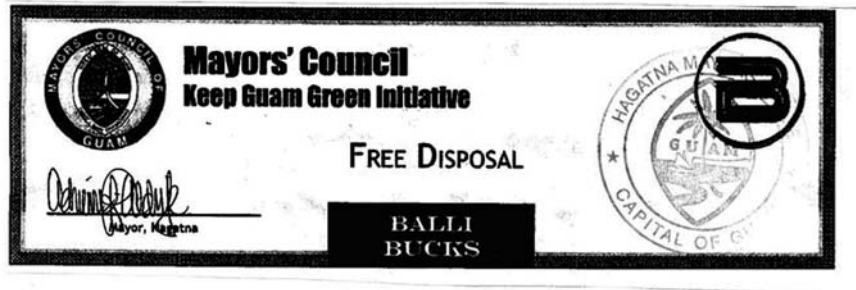
2:00 – 4:30pm

Balli Steel corporate office is located at the Para Oceana Building in Harmon; their scrap yard is located at Polaris Point, in Piti. They are open from 8:00 am – 5:00pm weekdays.

Balli steel has been a contractor with the Airforce and Navy for clean up projects within their installations. They are currently working with the military contractor for metallic waste disposal. In 2005, Balli Steel was awarded the Abandoned Vehicle contract under DPW. As part of the beautification efforts for the island, the Abandoned Vehicle Program was set out to collect all abandoned vehicles, white goods, and tires. They have coordinated with the village Mayors to estimate the numbers of abandoned vehicles to be collected per village. The price of shipping out the scrap metal collected under this project is \$30/ton. The project has been discontinued due to funding issues. Currently DPW still owes the company roughly \$150,000. This project is currently on hold due to the government non-payment.

Balli Steel has provided the mayor will coupons (Balli Bucks) to give to their constituents. These coupons entitle village residents to dispose their white goods free at the company's scrap yard. Without the Balli Bucks, a resident can take in their white goods for \$5.00 a piece. They have also mentioned that community partnership is essential to have the system continue.

FUTURE EXPANSION: They are planning to continue servicing the public with their programs such as the Balli Bucks with the Mayor's Council of Guam.



Balli Steel – Balli Bucks (as provided by the Hagatna Mayor's Office)

#### **K. LUCKY ONE PUMPING**

Waste Cooking Oil to Bio Diesel

General Manager: Richard Kempfski

Senior Associate: Allen Turner

June 3, 2008

10:30 am

Lucky One Pumping, located in Anigua, has been converting used cooking oil to Bio – diesel or FAME (**F**atty **A**cid **M**ethyl **E**ster). They have been using biodiesel to operate and run their fleets. The current facility produces 12,000 gallons of biodiesel in a year. The process takes about 4 days to complete. Although the company deals with recycled used cooking oil, it uses the very expensive ingredient called Methanol, which currently cost \$12/gallon.

Residents can bring in their waste cooking oil free (five gallons max). Companies are charged an amount to bring n their cooking oil and for Lucky One Pumping to collect. They also take in Navy's used cooking oil. The by-product for recycled cooking oil is soap.

FUTURE EXPANSION: They stated that even if there is a growing demand for bio-diesel there is not enough supply to meet the demand.



Used cooking oil is stored for sediments to settle.



Processing occurs in a 20 ft. container located at their office.



Processing of waste cooking oil to biodiesel.