

GEORGIA INSTITUTE OF TECHNOLOGY
Engineering Experiment Station

PROJECT INITIATION

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Project No.: A-1637

Project Director: T. I. Chiang

Sponsor: Fukaishi Group, Inc.

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PROJECT TITLE: A Survey of Plastic Waste in Georgia

PROJECT NO: A-1817

PROJECT DIRECTOR: T. I. Chiang

SPONSOR: Fukaishi Group, Inc.

TERMINATION EFFECTIVE: Sept. 30, 1974

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Project A-1637

PLASTICS WASTE SURVEY IN GEORGIA

Prepared for
The Fukaishi Group, Inc.

by
Tze I. Chiang
and
Harvey Diamond

Industrial Development Division
Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
August 1974

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Summary

A monthly total of 3,039,000 pounds of plastics waste has been reported by 50 companies which are willing to commit or sell their plastics wastes, and the reported volumes are the right kinds of plastics for the Reverzer System. Company name and address, kind and volume of plastics generated per month, and person for further inquiries are given in Appendix 1.

Fifteen companies reported a total monthly volume of 970,000 pounds of usable plastics waste, but the reported volumes are not available for commitment. A monthly volume of 496,000 pounds of unusable plastics waste was reported by 28 companies. In summation, a total of 4,505,000 pounds of monthly plastics waste has been reported by 93 companies under this survey. These volumes are tabulated according to geographical areas in this report.

Three locations stand out among over 30 locations as the potential sites for the establishing of a Reverzer System under this survey. They are Carrollton, Covington, and Norcross. All of them are in Georgia. Monthly volumes of usable and available plastics waste are 1,600,000 pounds in Carrollton, 250,000 pounds in Covington, and 200,000 pounds in Norcross.

Carrollton is the county seat of Carroll County, located 51 miles west of Atlanta, Georgia. Covington is the county seat of Newton County, located 35 miles southeast of Atlanta. Norcross is within the Atlanta metropolitan area.

Introduction

At the request of the Fukaishi Group, Inc., the Industrial Development Division, Engineering Experiment Station, conducted a survey of plastics waste in Georgia from June through August, 1974. The purpose of the survey was to locate the concentration of particular plastics wastes generated in a certain area so that the Fukaishi Group could set up a Reverzer System for plastics recycling.

An original plan called for the survey to cover both industrial wastes and domestic wastes. After much discussion, a final agreement was reached with the Group that domestic wastes collected by municipal sanitary units were to be dropped from the survey because it is impractical to separate plastics wastes from all other wasted materials collected by municipal sanitary units at the present time. Instead, two metropolitan areas, Birmingham, Alabama, and Chattanooga, Tennessee, were added in the survey.

Specific objectives of the survey are given as follows:

1. To identify type and volume of plastics wastes generated in each survey location or survey unit which are useful to the Fukaishi Group, Inc.
2. To provide company names, addresses, and personnel for further inquiries of those companies willing to commit or to sell their plastics wastes.
3. To recommend locations which have generated sufficient volume of plastics wastes for recycling purposes.

Survey Procedure and Returns

A list of survey population was compiled from the 1973 Georgia Manufacturing Directory to cover 45 four-digit industries as classified by the Standard Industrial Classification (SIC), U. S. Department of Commerce. These industries are in the fields of textile, apparel, chemical, plastics, furniture, paper products, primary metal, electrical equipment, machinery, and transportation equipment. Similar lists were prepared for Birmingham, Alabama, and Chattanooga, Tennessee, from the Alabama and Tennessee directories.

A questionnaire was prepared and tested (see Appendix 2). On June 21, 1974, questionnaires with cover letters, and stamped, self-addressed envelopes were sent out to 554 companies on the mailing lists. Five hundred thirty-five of them were delivered, and 19 were returned for undelivery. As of August 12, 1974, the survey cut-off date, 179 companies have responded to the survey, or 33% of the delivered questionnaires.

Of the 179 respondents, 93 do generate plastics waste and 86 do not. Of the 93 generating plastics waste, 69 are willing to commit or to sell their plastics waste, while 24 will not commit or sell their waste. Of the 69 companies willing to commit or sell their plastics waste, 50 of them generate right kinds of plastics which can be used by the Reverzer System, while 19 companies generate plastics wastes which cannot be used by the System. The details of survey returns and type of plastics wastes are given below:

Type of Plastics Which Can be Used
by the Reverzer System

Styrene
Acrylics
Vinyls
Polyethylene
Polyamides
Polypropylene

Type of Plastics Which Cannot be Used
by the Reverzer System

Cellulosics
Urethanes
Phenolics
Ureas
Epoxies
Polyesters

Survey Returns

Total questionnaires sent out	554 companies
Total delivered	535 companies
Total respondents (as of August 12, 1974)	179 companies
Rate of response	33%
Generate plastics waste	93 companies
Not generate plastics wastes	86 companies
Generate plastics wastes and willing to commit or sell their wastes	69 companies
Generate plastics wastes but not willing to commit or sell their wastes	24 companies
Generate usable plastics waste and willing to commit	50 companies
Generate unusable plastics waste but willing to commit	19 companies

Follow-up Interviews

Follow-up interviews were taken in two steps. One was concerned with survey respondents and one dealt with non-respondents. About 15 survey respondents were interviewed by phone calling to check out the accuracy of the information given in their returned questionnaires. Some corrections were made.

Survey returns which generate plastics wastes are highly concentrated in seven industries, so that the efforts of follow-up interviews of non-respondents were also directed toward these seven industries. They are as follow:

SIC 3079 Miscellaneous plastics products
SIC 3069 Fabricated rubber products, N.E.C.
SIC 2281 Yarn spinning mills: cotton, man-made fibers and silk
SIC 2272 Tufted carpets and rugs
SIC 2221 Broad woven fabric mills, man-made fiber and silk
SIC 2299 Textile goods, N.E.C.
SIC 2643 Bags, except textile bags

Among those non-respondents, only 35 companies have an employment of 300 persons and up, and 59 companies have an employment of 200 persons and up. Follow-up interviews were taken among large companies with an employment of 200 persons or more. After more than a dozen phone calls, it became apparent that the efforts were not productive. All answers were negative. Most companies do not generate any plastics waste. A few companies do generate plastics waste, but they recycle the waste into their own production.

Since the energy crisis, large plastics producers or users have begun recycling plastics waste into their own production. Because of the short supply and high costs of plastics material, many companies do not want to sell their plastics waste even if they could make a little money by selling. To them, the down time of their production is more important than selling waste. This development has been confirmed both by follow-up interviews and by mail survey respondents.

Survey Results

Usable and Available Plastics Waste

A monthly total of 3,039,000 pounds of plastics waste has been reported by the 50 companies which are willing to commit or sell their plastics wastes, and the reported volumes are the right kinds of plastics for the Reverzer System. Company name and address, kind and volume of plastics generated per month, and a person with telephone number for further inquiries are given in Appendix 1. These 50 companies are grouped by 18 geographical areas according to area development commission boundaries (see Map 2), plus Area 19 for Chattanooga, Tennessee, and Area 20 for Birmingham, Alabama.

This usable and available plastics waste has been tabulated by location. Map 1 shows the concentration of the waste volume by approximate location in Georgia. Three locations stand out. Carrollton, Carroll County, has a monthly volume of about 1,600,000 pounds generated by the Southwire Company. Covington, in Newton

AREA LOCATION OF AVAILABLE THERMOFORM PLASTICS WASTE



County, has a monthly volume of 250,000 pounds, generated by the Hercules, Inc. (plant located in Covington). Norcross, in Gwinnett County, has a monthly volume of 200,000 pounds, generated by the Western Electric Companies.

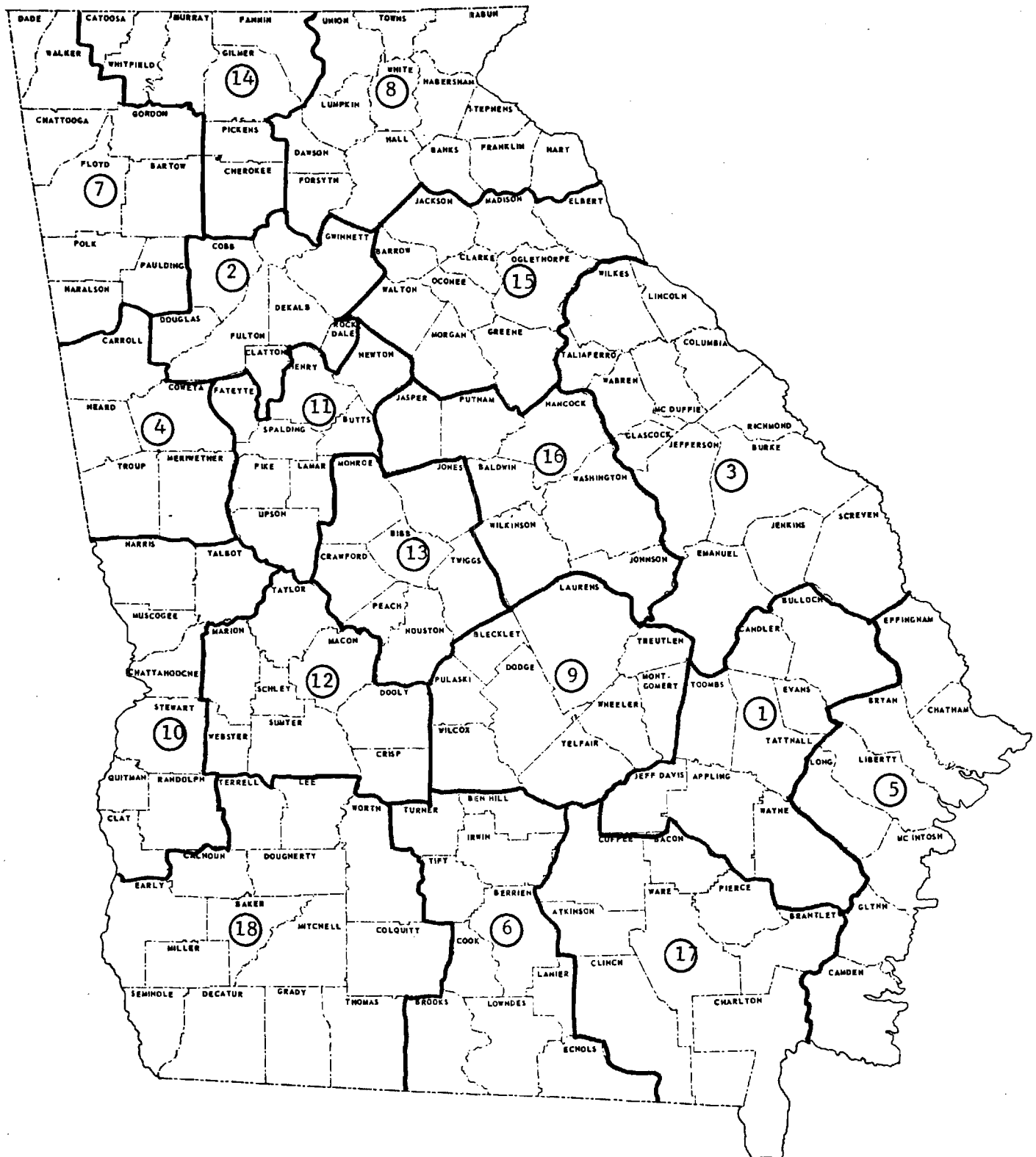
It is understood that the Reverzer System would require about 300,000 pounds of plastics waste per month. The three mentioned locations are the potential places which could support such an operation under this survey. There are 30 other locations generating plastics waste on the map, but none of them comes close to 300,000 pounds per month. Although Covington and Norcross are also short of 300,000 pounds per month, they can be supplemented by nearby locations. Chattanooga and Birmingham have insignificant volumes of plastics waste.

The 3,039,000 pounds of monthly volume of plastics waste are tabulated according to geographical areas (see Map 2), and are presented in Table 1. Areas 2, 4, and 11 generate more than 300,000 pounds per month. Areas 2 and 11 are adjacent to each other (see Map 2). Both areas can be a good supporting base to each other if a proposed plant is set up in a neighboring area.

Table 1
Usable and Available Plastics Waste
by Area, 1974

<u>Area</u>	<u>No. of Company</u>	<u>Monthly Volume (in thousand pounds)</u>
1	1	12
2	18	448
3	1	8
4	2	1,604
5	-	-
6	1	3
7	4	71
8	6	75
9	-	-
10	2	19
11	4	348
12	-	-
13	-	-
14	4	164
15	2	101
16	-	-
17	-	-
18	3	153
19	1	20
20	<u>1</u>	<u>13</u>
Total	50	3,039

Map 2
GEOGRAPHICAL GEORGIA AREAS
FOR PLASTICS WASTE



Nearly all reported volumes have a foreign matter content of less than 25%.

Usable But Not Available Plastics Waste

Fifteen companies reported a total monthly volume of 970,000 pounds of usable plastics waste, but the reported volumes are not available for commitment. One of the companies has generated 300,000 pounds per month in Area 7. Details are given in Table 2. Besides, nine companies indicated that their plastics wastes are not available for commitment, and no volume is given.

Table 2
Usable But Not Available Plastics Waste
by Area, 1974

<u>Area</u>	<u>No. of Company</u>	<u>Monthly Volume (in thousand pounds)</u>
2	3	18
3	1	170
6	1	165
7	4	397
10	2	60
13	1	5
14	1	10
19	<u>2</u>	<u>145</u>
Total	15	970

Unusable Plastics Waste

A total monthly volume of 496,000 pounds of unusable plastics waste was reported by 28 companies, although the volume is available for commitment. The tabulation of the volume by area is given in Table 3.

Table 3
Unusable Plastics Waste by Area, 1974

<u>Area</u>	<u>No. of Company</u>	<u>Monthly Volume (in thousand pounds)</u>
1	1	5
2	2	5
3	2	6
4	1	10
6	1	2
7	4	55
8	5	52
9	1	6
10	2	6
11	1	13
13	2	12
14	1	80
15	3	224
18	<u>2</u>	<u>20</u>
Total	28	496

In summation, a total of 4,505,000 pounds of monthly plastics waste has been reported by 93 companies under this survey, of which 3,039,000 pounds are usable and available for commitment, 970,000 pounds are usable but not available for commitment, and 496,000 pounds are not usable. These total volumes are tabulated by area and are presented in Table 4 and Map 3.

Table 4
Total Reported Plastics Waste Volume
by Area, 1974
(in thousand pounds per month)

<u>Area</u>	<u>Usable & Available</u>	<u>Usable But Not Available</u>	<u>Unusable</u>	<u>Total</u>
1	12	-	5	17
2	448	18	5	471
3	8	170	6	184
4	1,604	-	10	1,614
5	-	-	-	-
6	3	165	2	170
7	71	397	55	523
8	75	-	52	127
9	-	-	6	6
10	19	60	6	85
11	348	-	13	361
12	-	-	-	-
13	-	5	12	17
14	164	10	80	254
15	101	-	224	325
16	-	-	-	-
17	-	-	-	-
18	153	-	20	173
19	20	145	-	165
20	13	-	-	13
Total	3,039	970	496	4,505

Conclusion and Potential Locations

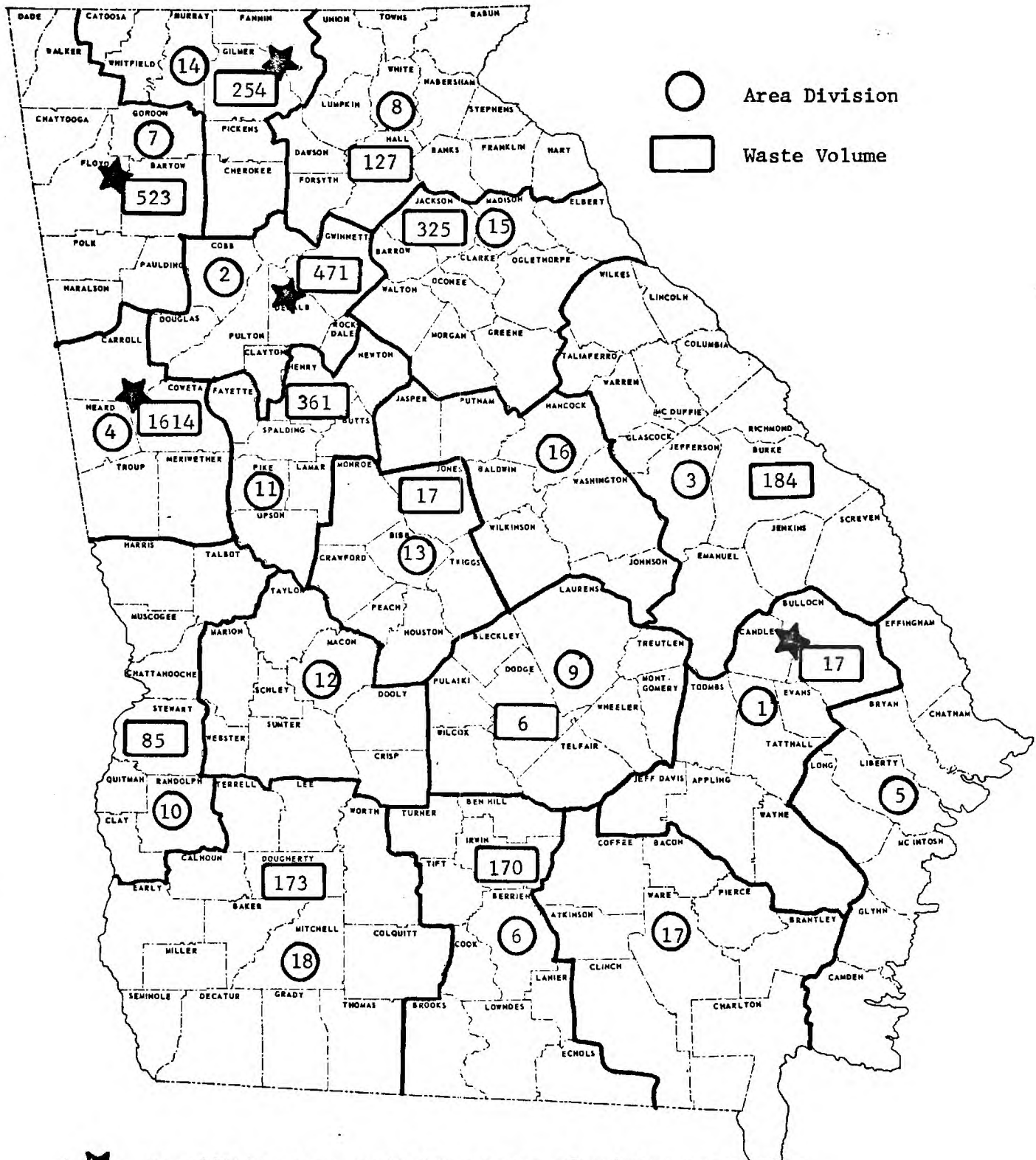
If the Fukaishi Group, Inc., intends to obtain the bulk of its raw material needs from one source, then on the basis of reported volumes of usable and available plastics waste, only three area locations in Georgia can be considered for the Reverzer System plant. These areas are, in order of volumes of plastics waste generated -- Carrollton, Covington, and Norcross.

If, on the other hand, it is economically feasible for a few plastics waste producing companies within the same general area (30 mile radius) to collectively satisfy the Reverzer raw material requirements, then the Fukaishi Group can choose almost any desirable site in Metropolitan Atlanta for a plant location.

It would appear, however, in view of the prime importance of raw material availability to the operation, all decisions regarding plant location should be reserved until firm commitments for plastics waste can be secured.

Map 3

MONTHLY VOLUMES OF
PLASTICS WASTE REPORTED
IN SPECIFIC GEORGIA AREAS
(in thousands of pounds)



Fortunately, Carrollton, Covington, and Norcross are progressive, industrial-oriented communities. Each has at least one industrial area of substantial acreage available in the form of planned districts where pollution should create no problem.

Norcross, part of Metropolitan Atlanta, reflects the advantages of a large city location, while Carrollton and Covington, although slightly removed from the area, still enjoy ready access to the large urban markets in Georgia and the Southeast.

The following economic profiles for Carrollton and Covington indicate the acceptability of these areas for the location of a Reverzer plant, should the raw material procurement question be resolved to satisfaction.

CARROLLTON, GEORGIA

Carrollton, county seat of Carroll County, is located 51 miles west of Atlanta, 85 miles north of Columbus, and 16 miles east of the Georgia-Alabama state line. U. S. Highways 27 (Georgia 1) and 27 Alternate (Georgia 16) and Georgia Highway 166 intersect at Carrollton. Interstate Highway 20 will pass 10 miles north of the Carrollton city limits.

Carrollton had a population of 13,520 in 1970 and Carroll County had 45,404 in the same year. Within the Carrollton labor market area (Carroll, Coweta, Douglas, Haralson, Heard, and Paulding counties), a total of 4,364 persons can be considered as currently available for manufacturing employment, which would meet existing wage rate levels. These estimates are based upon data compiled by the Georgia Department of Labor in May 1974.

The Central of Georgia Railway operates mainline service from Chattanooga (Tenn.) via Carrollton to Macon and Columbus. The Central's line diverges southeast of Newnan (22 miles southeast) -- one line running southeast to Griffin and Macon, another to Columbus. All of these cities except Carrollton are points of interchange with other railroads.

Georgia Power Co. has a district office in Carrollton and distributes power directly to the consumer. Carrollton is served by two 115-kv transmission lines, one from Plant Yates, Georgia Power Co.'s steam-electric generating plant on the Chattahoochee River (10 miles east), and the other from a steam-electric generating plant near Rome (8 miles west). Two 46-kv transmission lines from Bremen and

Plant Yates serve as alternate sources of power. Two substations operate with a combined capacity of 23,000 kva for general distribution of power in the city of Carrollton; in addition, several large industrial plants have substations served directly from the 46-kv or 115-kv transmission lines.

Plant Yates currently has a generating capacity of 550,000 kw and has two additional units under construction totaling 700,000 kw that will be operational in 1974. Georgia Power also has begun construction on a new steam-electric generating plant about 10 miles southeast of Carrollton known as Plant Yellow Dirt. So far, two units have been announced for this plant, each 880,000 kw. Unit One is to be operational in 1976 and Unit Two in 1977.

Georgia Natural Gas Co., a division of Atlanta Gas Light Co., distributes gas purchased from Southern Natural Gas Co. to Carrollton customers. The system's daily allotment is 10,970,000 cubic feet; the daily peak, recorded in January 1970, was 12,670,000 cubic feet. The system's capacity is 18 million cubic feet per day.

The city water system is supplied by the Little Tallapoosa River. The system's pumping capacity is 10 million gallons per day; filtered or finished water capacity is 8 million gallons per day; storage capacity is 3.7 million gallons, of which 2.9 million gallons is elevated. The recorded peak daily consumption is 5 million gallons. The city system includes 3.2 miles of 12-inch mains, 3 miles of 10-inch, 5 miles of 8-inch, 0.6 mile of 18-inch, and 4 miles of 14-inch mains.

The Carrollton Payroll Development Authority owns 15 acres of land as an industrial site within the city limits. Eight-inch water, eight-inch sewer and four-inch gas mains adjoin the property, and electric power lines serve the area. The property lies west of and adjacent to the Central of Georgia Railway and south of the Douglas & Lomason Co. plant on Alabama Street.

The Carrollton Payroll Development Authority also owns a 100-acre site just northwest of the city limits of Carrollton. Two hundred and fifty acres adjoining to the north are under option. This tract is served by the Central of Georgia Railway and has a four-inch gas main adjacent to the property. Electric power lines also serve the area, and other utilities are planned in the future. A 16-inch water main and a 15-inch sewer main will be extended into this area within the right-of-way of the new Appalachian Highway.

In the northwest quadrant of Carrollton, on Alabama Street, are two privately owned tracts -- 70 acres just west of the service road to Trent Tube Co. and 24

acres on the east. Both sites are served by four-inch gas and eight-inch water and sewer mains; both are zoned for industrial use.

COVINGTON, GEORGIA

Covington, county seat of Newton County, is located near the center of Georgia's Piedmont Plateau Region in the north central part of the state, 35 miles southeast of Atlanta, 66 miles north of Macon and 126 miles west of Augusta. Interstate Highway 20, U. S. Highway 278 (Georgia 12) and Georgia Highway 36, 81, 142 and 162 pass through Covington.

Covington had a population of 10,267 in 1970 and Newton County had 26,282 in the same year. Within the Covington labor market area (Butts, Henry, Jasper, Morgan, Newton, Rockdale, and Walton counties), a total of 2,680 persons can be considered as currently available for manufacturing employment, which would meet existing wage rate levels. These estimates are based upon data compiled by the Georgia Department of Labor in May 1974.

Georgia Power Co. serves Covington with one 46-kv transmission line which feeds one substation with a capacity of 7,500 kva. The distribution system, with both 4.16-kv and 12.5-kv sections, has experienced a peak demand of 8,160 kw.

Three industrial plants in Covington are served directly from a 46-kv line by individual substations.

The City of Covington distributes natural gas purchased from the Transcontinental Gas Co., which serves the town with a six-inch line. The Btu content of the gas averages 1,045 per cubic foot. The system allotment is approximately 4,300,000 cubic feet per day with a recorded peak consumption of 3,106,000 cubic feet.

The sources of Covington's water system are the Alcovy River and Dried Indian Creek. The system has a pumping and filtering capacity of 3-million gallons per day and a maximum consumption of 1.7-million gallons per day. The water system, with elevated storage in four tanks of 1.25-million gallons, contains 22 miles of six-inch water mains, 3.8 miles of eight-inch mains and 1.8 miles of 10-inch mains.

The 920-acre Covington Industrial District contains many available sites. The Industrial District is 1,000 feet from Interstate 20 and adjacent to the Georgia Railroad. The site is served by eight-inch and ten-inch water lines, four-inch gas lines, eight-inch sewer lines and 7.2-kv electricity.

APPENDIX 1

Usable and Available Plastics Waste
Generated by Survey Respondents

Area 1

Amoco Fabrics - Patchogue - Plymouth Div.
Hazlehurst Mills
P.O. Box 625
Hazlehurst, Georgia 31539
Polypropylene
12,000 lbs/month
Bennett Medlin (912) 375-2561

Area 2

Sweetheart Plastics, Inc.
Georgia Rt. 138 at I-20
P.O. Box 380
Conyers, Georgia 30327
Acrylics, polyethylene, styrene
4,000 lbs/month
Leonard H. Epstein (404) 483-9556

Western Electric Company, Inc.
2000 Northeast Expressway
Norcross, Georgia 30071
Vinyls, polyethylene, polypropylene
190,000 lbs/month
B. E. Shoemaker (404) 447-2156

Lockheed-Georgia Co.
South Cobb Drive
Marietta, Georgia 30060
Thermoplastic
500 lbs/month
E. L. Smith (404) 424-3321 or 424-2965

Thompson Industries, Inc.
4680 Lewis Road
Stone Mountain, Georgia 30083
Styrene
4,000 lbs/month
Wayne Roberts (404) 938-5281

Greif Bros. Corp.
3301 Montreal Industrial Way
Tucker, Georgia 30084
Polyethylene
6,000 lbs/month
Bruce H. Morrison (404) 938-9886

Dolco Packaging Co.
P.O. Box 567
Lawrenceville, Georgia 30245
Styrene foam
25,000 lbs/month
Billy Ray Puckett (404) 963-6191

Allastic Division of Kusan, Inc.
1275 Enterprise Drive
Norcross, Georgia 30071
Styrene
10,000 lbs/month
C. L. Fay (404) 448-8011

Area 2 (continued)

Dart Container Corp.
2120 Lithonia Industrial Blvd.
Lithonia, Georgia 30058
Styrene foam
10,000 lbs/month
D. Gantenbein (404) 482-8851

Porex Materials Corp.
7380 Bohannon Road
Fairburn, Georgia 30213
Polyethylene and others
3,000 lbs/month
R. Hannah (404) 964-1421

Georgia Duck & Cordage Mill
21 Laredo Drive
Avondale Estates, Georgia 30002
PVC
20,000 lbs/month
J. R. Bird (404) 294-5272

Gladwin Industries
1940 Will Ross Court
Atlanta, Georgia 30341
Styrene
1,000 lbs/month

W. R. Grace & Co., Const. Prod. Div.
6300 Button Bwinett Drive
P.O. Box 47730
Atlanta, Georgia 30340
Polyethylene
7,000 lbs/month
Jerry McGee (404) 448-5880

Kennesaw Plastics
Div. of W. R. Grace & Co.
55 Enterprise Blvd., S.W.
Atlanta, Georgia 30336
Styrene
50,000 lbs/month
J. E. LeGros (404) 691-4860

Marion Manufacturing Co., Inc.
174 Chester Avenue, S.E.
Atlanta, Georgia 30316
Polyethylene
2,000 lbs/month
T. L. Waxelbaum (404) 523-6475

Area 2 (continued)

Printpack, Inc.
4335 Wendell Dr., N.W.
P.O. Box 43687
Atlanta, Georgia 30336
Polyethylene
15,000 lbs/month
R. Bruce Weaver (404) 691-5830

Rexham Corporation, Soft Goods Pkg.
690 Huff Road, N.W.
Atlanta, Georgia 30318
Polyethylene
20,000 lbs/month
James E. Roone (404) 351-5900

St. Regis Paper Co.
Flex Pkg. Div.
840 Woodrow Street, S.W.
Atlanta, Georgia 30315
Polyethylene
65,000 lbs/month
John R. Burnette (404) 753-4131

Sewell Plastics, Inc.
5515 Tulane Drive, S.W.
Atlanta, Georgia 30336
Polyethylene
10,000 lbs/month
Charles Sewell (404) 691-8931

Area 3

Sylvania Spinning Corp.
Millen Road
Sylvania, Georgia 30467
Polypropylen and polyethylene
8,000 lbs/month
Thomas W. Qualman (912) 564-7185

Area 4

Deering Milliken, Inc.
Callaway Div.
Unity Plant
One Dallas Street
LaGrange, Georgia 30240
Nylon
4,300 lbs/month
J. C. Webnar (803) 682-3115

Area 4 (continued)

Southwire Co.
Fertilla Road
Carrollton, Georgia 30117
PVC
1,600,000 lbs/month
Jesse Mew (404) 832-6311

Area 6

Nashville Mills
Div. of Patchogue Plymouth
P.O. Box 377
Nashville, Georgia 31639
Polypropylene
3,000 lbs/month
Van Z. Cochran (912) 686-5511

Area 7

Calhoun Chemical & Coating Corp.
P.O. Box 595
Calhoun, Georgia 30701
Styrene and others
50,000 lbs/month
W. J. Mohr (404) 629-2841

New Found Yarns
Box 411
Calhoun, Georgia 30701
Polyamides
15,000 lbs/month
R. Walshaw (404) 629-7761

Regent Mills, Inc.
Industrial Blvd.
P.O. Box 409
Calhoun, Georgia 30701
Polyamides and polypropylenes
5,000 lbs/month
Bob Kokoszka (404) 629-4541

Integrated Products, Inc.
5 North Sycamore
P.O. Box 1543
Rome, Georgia 30161
Nylon
1,000 lbs/month
Hardin C. Byars (404) 235-3341

Area 8

Chadbourn Industries
P.O. Box 1055
Gainesville, Georgia 30501
Nylon and others
19,000 lbs/month
F. E. Bobo, Jr. (404) 532-7205

Gainesville Manufacturing Co.
2063 Memorial Park Blvd.
Gainesville, Georgia 30501
Polyethylene
900 lbs/month
Neal B. Kightlinger (404) 536-4481

Lanier Industries, Inc.
Briarwood Road
Oakwood, Georgia 30566
Styrene and others
400 lbs/month
Len Purdy (404) 532-6401

Ames Textile Corp.
P.O. Box 218
Cleveland, Georgia 30528
Acrylics
12,000 lbs/month
John Stringer (404) 865-2162

Chicopee Mfg. Co.
Lumite Div.
Clarkesville Highway
Cornelia, Georgia 30531
Polypropylene and others
40,000 lbs/month
Allen T. Adams (404) 778-2281

Modern Knits, Inc.
325 Pine Street
P.O. Box 921
Toccoa, Georgia 30577
Polyethylene
2,000 lbs/month
Charles Haynie (404) 886-9435

Area 10

Champion Packages Co.
P.O. Box 1158
916 Eighth Avenue
Columbus, Georgia 31902
Polyethylene
3,000 lbs/month

Columbus Mills, Inc.
River Road
P.O. Box 1560
Columbus, Georgia 31902
Polyamides and others
15,000 lbs/month
Colville Harrell (404) 324-0111

Area 11

General Tire-Rubber Co.
Aldora Mills Div.
Barnesville, Georgia 30204
Polyamides nylon
33,000 lbs/month
C. M. Newner (404) 358-1150

Thomaston Mills
115 E. Main Street
Thomaston, Georgia 30286
PVS
60,000 lbs/month
John M. Ormand (404) 647-6611

MacGregor Consolidated Products
Div. Brunswick Corp.
Industrial Blvd.
Covington, Georgia 30209
Dupont Surlyn
5,000 lbs/month
Gray Hetrick (404) 786-5321

Hercules, Inc.
Old Alcovy Road
P.O. Box 8
Oxford, Georgia 30267
Polypropylene
250,000 lbs/month
George C. Preffer (404) 786-7011

Area 14

Playfield Industries, Inc.
Murray Industrial Park
P.O. Box 8
Chatsworth, Georgia
PVC
12,000 lbs/month
John B. Whisnant, Jr. (404) 695-4674

Jonason, Incorporated
Cleveland Road
Dalton, Georgia 30720
Polypropylene
60,000 lbs/month
E. E. Buffington (404) 278-1868

Northwick Mills
P.O. Box 949
Dalton, Georgia 30720
Polyamides and others
12,000 lbs/month
Fred Rosen (404) 278-2915

Sweetwater Rug Corp.
724 E. Nashville Street
Ringgold, Georgia 30736
Carpet bubble
30,000 lbs/month
Sam Amsterdam (404) 935-2311

Area 15

Certain Teed Products Corp.
Social Circle, Georgia 30279
PVC pipe
41,000 lbs/month
J. Donald Partee (404) 464-3343

Kendall Company
Athens Industrial Park
Athens, Georgia 30601
Acrylics
60,000 lbs/month
Douglas N. Watson (404) 549-6561

Area 18

ITT Thompson Circuit Control Div.
Industrial Park
Bainbridge, Georgia 31717
PVC
3,000 lbs/month
Clayton Penhallegon (912) 246-5510

Area 18 (continued)

Moultrie Textiles
Eleventh Street, S.W.
Moultrie, Georgia 31768
Polypropylene
70,000 lbs/month
W. L. Maige (912) 985-5210

Moultrie Textiles
Eleventh Street, S.W.
Moultrie, Georgia 31768
Polypropylene and nylon
80,000 lbs/month
E. B. Acuff (912) 985-2131

Area 19

Fibron, Inc.
Industry Drive, Box 5290
Chattanooga, Tennessee 37416
Polypropylene
20,000 lbs/month
Larry E. Clingan (615) 892-8080

Area 20

Vulcan Binder & Cover Co.
Div. EBSCO Industries, Inc.
1230 First Avenue, North
P.O. Box 1943
Birmingham, Alabama 35201
Vinyl
12,500 lbs/month
R. Denson Parker (205) 672-2241

APPENDIX 2

Questionnaire and Cover Letter Used in the Survey



ENGINEERING EXPERIMENT STATION

GEORGIA INSTITUTE OF TECHNOLOGY • ATLANTA, GEORGIA 30332

A private party is interested in setting up a plastics waste recycling plant in the Southeast in order to make useful products out of wasted plastics material or synthetic fiber. The proposed plant would use both thermoplastic and thermoset plastics. Foreign matters and dirt present no problem. However, the content of foreign matter needs to be specified.

Enclosed is a simple questionnaire designed to locate the concentration of plastics waste in your area. Your answers will be used solely for the purpose of planning the proposed plant. Please return the questionnaire in the enclosed stamped, self-addressed envelope, even though you may not produce plastics waste. Your reply may solve your waste disposal problem and also would conserve our natural resources in the nation.

Because of the stringent time limit set for this project, we would appreciate your prompt reply.

Very truly yours,

Tze/T. Chiang
Principal Research Scientist

TIC:sw

Enclosures

QUESTIONNAIRE

Plastics Waste Availability

1. Do you generate plastics waste? Yes _____ No _____

2. Products produced with plastics as whole material (such as fiber) or as a part of materials used:

Plastics as whole material

Plastics as part material

3. Basic type of plastics used by percentage:

Styrene _____%	Ureas _____%	Polyethylene _____%
Cellulosics _____%	Acrylics _____%	Polyesters _____%
Urethanes _____%	Vinyls _____%	Polyamides _____%
Phenolics _____%	Epoxies _____%	Others _____%

4. Average amount of plastics waste generated per month:

<u>Pounds</u>	<u>Type of plastics</u>	<u>In what form of product produced</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. Approximate foreign matter content in your plastics waste:

Metal _____%	Moisture _____%
Glass _____%	Others (specify):
Sand or stone _____%	_____%
Paper _____%	_____%
Fiber _____%	_____%

6. Will you commit your plastics waste to the proposed recycling system?

Yes _____ No _____

Comment: _____

7. Address follow-up inquiries to:

Mr. _____ Phone: () _____
area number
code