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A P P E N D I X

to

P U B L I C H E A R I N G

before

ASSEMBLY COUNTY GOVERNMENT AND REGIONAL AUTHORITIES COMMITTEE

ASSEMBLY BILL NO. 4105

(Requires the Department of Environmental Protection to conduct a study of the cumulative impact of resource recovery facilities on the environment, and also appropriates \$75,000 to the Department on Environmental Protection to conduct the study)

September 26, 1989
Freeholders Meeting Room
Court Plaza South
Hackensack, New Jersey

A P P E N D I X V O L U M E I I I

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New Jersey State Library

FROM MARYANN GARDNER PIERCE

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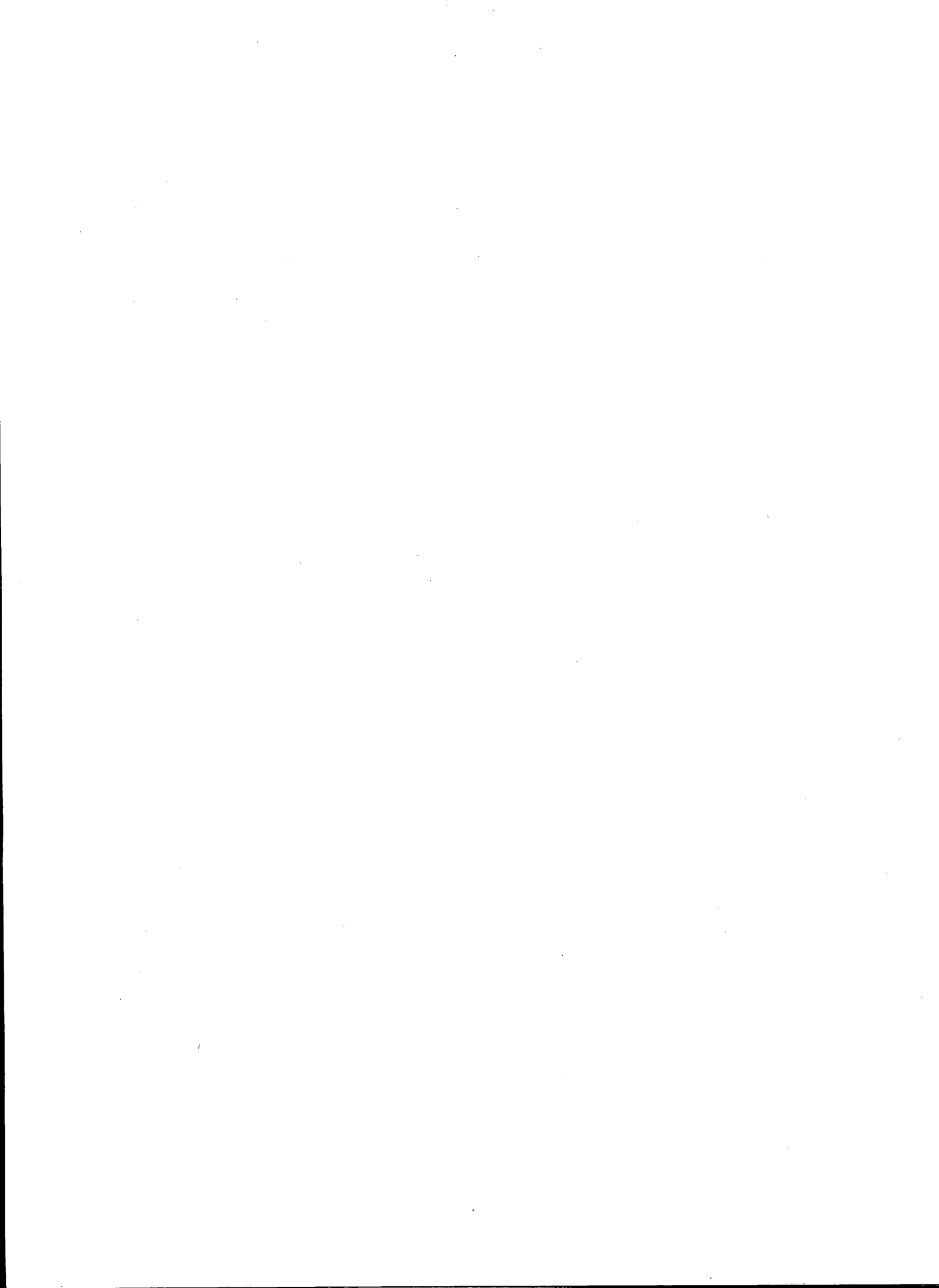


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**Morris County Resource Recovery Facility Site Suitability Study
Map on file with Assembly County Government Committee Aide.

* * * * *



1 that plant operated at half capacity it cost
2 another \$100,000.00 per day. These are not
3 small numbers. Incidentally, if I might go
4 back to the original rupture of the boiler
5 tubes in that plant that repair cost a
6 million dollars. I would say most of the
7 people here if they sit down and figure out
8 when they started working whether at age
9 seventeen or twenty-one will never make a
10 million dollars. I also had listed here the
11 accident in Detroit 75 of the workers walked
12 off the job, union workers. Guess they
13 didn't think that was too pleasant when they
14 started breaking out in rashes. As a
15 follow-up on that the results from the
16 testing of the ash from the Detroit boiler
17 yielded cadmium levels of 5.9 times the
18 allowable concentration, lead eight times the
19 allowable concentrations. I think we
20 understand why the people were breaking out
21 in rashes. I also had listed here the Warren
22 County unit. I think everything has been
23 covered on that. Based on this information,
24 information that has been presented by other
25 people here I would like to know what the

1 contingency plans are when this very
2 sophisticated technology fails. What will
3 our air quality be when the scrubbers and
4 whatever cleans these gases is not
5 functioning? Will the cost to keep the
6 incinerator running eventually become an
7 albatross, not around the residents of Mount
8 Olive, around the residents of Roxbury or
9 Succasunna but for the residents of the
10 entire Morris County. When I stand here and
11 reflected what has been said by the American
12 Lung Association a mother whose concerned
13 about the quality of life for her growing
14 children, a businessman who wonders whether
15 he's going to be in business or whether he
16 can even hire workers, the incredible list of
17 incinerator failures around this entire
18 country and the cost to repair them the
19 insane talk of reopening Combe North, that is
20 absolute insanity.

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1 (AUDIENCE APPLAUDS)

2 MR. TRUPPO: Then there was the
3 gentlemen who lived near an incinerator many
4 years ago and fourteen years ago contracted
5 cancer and then I think I find the most
6 frightening, my worse nightmare and that is
7 the talk of increased mortality rates. Are
8 we talking of extra deaths? Yes, that's what
9 we're talking about. My children possibly.
10 Actually, I don't think it will be my
11 children because I have three children ages
12 twenty to thirty. My thirty year old says
13 I'm not going to live in this state and she
14 lives in Florida. My twenty-five year old, I
15 don't think she's going to stay in the state.
16 She's already voiced that and my twenty-one
17 year old, pardon me, not twenty, graduating
18 Seton Hall says, "Dad, I don't want to live
19 in this state, not with the pollution
20 problems here." I'm just about done. I may
21 have grand children some day. I'm sure you
22 people, some of you have grand children,
23 families. How can you sit and look at
24 numbers like this and say you want to put an
25 incinerator into this county or into any

1 county? From this I think and I empnasize, I
2 don't think, I know that you must send this
3 incinerator to an early grave. Thank you.

4
5
6 (AUDIENCE APPLAUDS)

7 DIRECTOR HYLAND: Frank Lovasco.

8 MR. LOVASCO: My name is Frank Lovasco.
9 I live in Roxbury township. I just want to
10 say a few words. It seems to me with all the
11 high quality engineers and scientists we have
12 in Morris County we can't come up with
13 something a little more progressive than
14 burning our trash. As the physician just
15 mentioned few minutes ago, thirty years ago
16 smoking cigarettes was considered okay, no
17 problem. Nowadays we know it causes cancer.
18 We even believe now that the secondhand smoke
19 causes cancer. A few years ago, seventy's we
20 outlawed aerosol cans because they were
21 creating holes in the ozone. Now we have to
22 worry about air conditioning fluids, things
23 that we used to think were safe, freons
24 creating holes in the ozone. Acid rain was
25 laughed at a few years ago as being a

1 nonexistent problem. Why is it we always
2 have to prove something as a problem as
3 opposed to somebody proving to us its safe?
4

5
6 (AUDIENCE APPLAUDS)
7

8 MR. LOVASCO: Given this incineration
9 plan is basically a large furnace, large
10 chimney, why is this considered a state of
11 the art facility? Basically, there are other
12 alternatives. There are compost facilities,
13 large composting facilities that are run
14 around the country where people, you dump in
15 trash and it generates compost at the other
16 end. What do you do with the compost? You
17 could sell it, give it away to the township
18 people or you could use it in the vast
19 extensive parks of Morris County but that's
20 only part of the problem.
21

22 No one here tonight has mentioned the
23 other half of the problem and that is, what
24 are we doing about limiting our generation of
25 waste?

1 Do we recycle bottles? No. Do we have
2 something in Morris County? Do we have some
3 sort of a tax on disposables? Do we limit
4 the fact that people use paper plates, paper
5 cups, plastic, then dump them?

6 Do we have any kind of motivation for
7 people to limit our resources? What if
8 people start to generate less waste in the
9 future, what do you do with the incinerator
10 plant that has nothing to incinerate?

11 I would like to close with a few words,
12 a few thoughts. One is that we don't inherit
13 the land from our parents. We borrow it from
14 our children and basically wouldn't we all
15 sleep a little better if our grand parents
16 had made the hard decisions and saved it for
17 us, saved the trouble, saved us from the
18 trouble?

19
20 Let's not leave the problem for our
21 grand children and the second thing is the
22 fact that in this world we think globally and
23 act locally.

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25 We can clean up the world if we clean

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up our own house. Thank you.

(AUDIENCE APPLAUDS)

(PROCEEDING CONTINUES ON FOLLOWING
PAGE)

1 DIRECTOR HYLAND: Erik Lampinen is next.

2 MR. LAMPINEN: My name is Erik Lampinen.
3 I live in Flanders. I've lived in Morris County
4 virtually all my life. I was born and raised in
5 Chatham Borough. My parents still reside there,
6 and I've lived here for eleven years, as I said.

7 In my opinion, Morris County is perhaps
8 one of the finest places to live, work and raise
9 a family. As Freeholders, your primary duty is
10 to maintain Morris County's status as one of the
11 premiere places to live. And to accomplish that
12 task, many difficult decisions will have to be
13 made. Decisions which must further the
14 well-being of the county, and most importantly,
15 the people who live here.

16 I know that each and every one of you,
17 individually and collectively, believe that
18 incineration will solve all of the County's
19 solid waste disposal problems. You've read all
20 the material that the engineers, consultants and
21 salespeople have been able to give you, and
22 you've come to the conclusion that incineration
23 is the way to go.

24 Well, I believe that you and a lot of
25 others have been sold a bogus bill of goods.

1 Incineration is not what it's cranked up to be.
2 It's not economical, it's not safe, it's not
3 clean, and it's not for Morris County. Case in
4 point. Prior to its operation, the Warren
5 County incinerator located in Oxford was touted
6 as being the showcase for New Jersey
7 incineration with the state of the art
8 technology which would operate efficiently and
9 keep pollutants and other hazardous by-product
10 to say a minimum.

11 Well, we all know that the Oxford facility
12 has been a dismal failure which has cost the
13 taxpayers much more than they had predicted
14 while falling way short of its expected results.

15 Has any member of this Board conducted
16 wind flow surveys from the proposed site? One
17 doesn't have to be a rocket scientist to
18 understand that most of the prevailing winds
19 come out of the west and blows to the east.
20 That, combines with the high altitude of the
21 proposed site allows for greater distribution of
22 the dioxins and other pollutants which will
23 certainly be produced.

24 As I mentioned before, I lived here eleven
25 years, and even if it's built here, I have no

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1 plans on moving. I think the resulting health
2 threat to my family and neighbors will not be as
3 severe as it will be to those living in areas to
4 the east, Chester, Mendham, Harding, Randolph,
5 Rockaway, Denville, Mountain Lakes, Morris
6 Plains, Morristown, Morris Township or even
7 Madison. You know, no one here tonight wants to
8 see the garbage piling up in the streets, but I
9 don't want to see it piling up inside my lungs
10 or the lungs of my parents or other relatives
11 who live throughout the county.

12 Incineration does not provide for any
13 quick solutions to our solid waste problems.
14 You have to stop looking at this through rose
15 colored glasses. Mandatory recycling
16 regulations must be enacted and enforced, and if
17 necessary, curbside inspection must take place
18 and violators must be fined on the spot.

19 Incineration is not a short-cut to
20 alleviation of the solid waste problems, it
21 should be viewed only as the method of last
22 resort, and then only when all other methods
23 have been explored, used and evaluated.

24 You know, the future of the health of all
25 the people in Morris County rests in your

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1 decisions. Take the time to evaluate all the
2 alternatives, and don't give in to the megabuck
3 pressure of the special interest groups. .

4 Thank you very much.

5 DIRECTOR HYLAND: Earl Spino here?

6 MR. SPINO: Hi. Is everybody awake?

7 DIRECTOR HYLAND: Yes, sir.

8 MR. SPINO: I know we've been here a long
9 time and it seems we've stood and talked like
10 this before, as the song goes.

11 We were privileged earlier by having a
12 bureaucrat here from the DEP who is, whose very
13 existence depends on whether we do or go to
14 incineration or not. I'm not a bureaucrat, I'm
15 not an engineer, believing that engineers can do
16 everything, as I'm sure Mr. O'Keefe might
17 believe. Engineers can probably do everything,
18 but at a cost that we're not willing to pay; on
19 that financial cost and at a health of the cost
20 that we shouldn't have to pay.

21 The DEP talked about incineration as being
22 the thing to do. Well, we've had some
23 experience in Mt. Olive with the DEP. When
24 something goes wrong with the facility, guess
25 who comes to check it? The DEP.

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1 Their existence is not going to allow them
2 to tell you that there's something wrong.
3 They're going to try to hide it, as they did
4 with Combe Fill. We had people come up from the
5 DEP and it took a court, a court to get them to
6 change their idea; not the people, the Court.

7 I would like to thank you all for making
8 the citizens of Roxbury and Mt. Olive second
9 class citizens as far as Morris County is
10 concerned.

11 (Applause.)

12 MR. SPINO: You know, I recently read with
13 interest and will probably read more in the
14 newspaper now than I've ever done before because
15 of what's going on. But one of the things that
16 intrigued me was that you're considering
17 advertising for a jail site, advertising for a
18 jail site because you don't want to hurt
19 people's feelings in the eastern part of the
20 county, but you don't care about this part of
21 the county.

22 advertise for a stack and see if Montville
23 wants it, or Denville wants it, or wherever else
24 you people live. You don't care. You know, you
25 accuse -- some of you accused the previous

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1 Freeholder Board of not listening. You're not
2 listening now. You're doing the same thing that
3 they did. You're turning the rest of the county
4 against Mt. Olive and Roxbury by diluting them
5 and telling them that you have a solution.

6 Well this isn't a solution. It's not
7 smart, it's not effective, and it's certainly
8 not going to be cheap. So you're selling the
9 people a bill of goods that's not going to come
10 true. All right? It will cost more, and
11 incineration is only a 70 percent solution.
12 Okay? And it's not a very smart idea. Anybody
13 can burn.

14 I also believe that inherent in this
15 decision is some nepotism and some conflict of
16 interest. We know that people on the Board have
17 worked for companies who have built
18 incinerators, and we know that people get up at
19 meetings who represent other towns and say, we
20 can't recycle, it's too hard, we don't like it,
21 we want to burn all our garbage. Their son
22 works for the MUA who supports incineration.
23 Well how can we do this?

24 (Applause.)

25 MR. SPINO: How can you do it?

1 Because you're not listening. And because
2 I believe in my heart you really don't care,
3 because I believe in my heart that this is going
4 to go through no matter what. We could get
5 statistics, pile it to the sky. You're not
6 going to read it, you're not going to be
7 interested in it, because you want to go down as
8 the people who solved the problem.

9 You're not going to solve the problem,
10 you're going to create a much worse problem.

11 Other counties -- because I believe in my
12 heart that this is not going to be a county
13 site, this is going to be a regional project --
14 other counties are already asking, you've
15 already been talking to other counties about
16 taking solid waste or about building an ash dump
17 somewhere else. They want something in return,
18 they want to bring their garbage here to burn
19 it.

20 As I said, recycling -- I mean, burning is
21 only a 70 percent solution, it does not go hand
22 in hand with recycling. They oppose each other.
23 The more recycling you do, the more garbage
24 you're going to have to bring in to burn from
25 someplace else.

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1 Take the leadership, be innovative, and
2 call for the moratorium on burning. Extend the
3 life of the landfill, because it will be number
4 one, cheaper, okay?

5 I just have one more statement.

6 And this is from the article on the Warren
7 County incinerator and it says "The incinerator
8 should be examined, not with an ostrich
9 mentality, but with a hawk's vision."

10 Think about that, and find out, get more
11 information on how we can use alternate methods,
12 because that's the answer, not an incinerator.

13 DIRECTOR HYLAND: Gary Colucci?

14 Carmen Fascia? Betsy Scapicchio?

15 MS. SCAPICCHIO: I already spoke.

16 DIRECTOR HYLAND: Maro Reinhardt?

17 MS. REINHARDT: Here.

18 DIRECTOR HYLAND: W. Davidson, Mountain

19 Lakes; Jim Benson from Rockaway Township.

20 Who are you ma'am?

21 MS. REINHARDT: My name is Margo

22 Reinhardt.

23 DIRECTOR HYLAND: Margo? Okay.

24 MS. REINHARDT: And I live in Long Valley.

25 We've heard a lot tonight about New

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1 Jersey's air pollution and that the EPA has
2 ranked it number two in having the nation's
3 poorest air quality. We've also heard about the
4 green house effect and the depletion of our
5 ozone layer, which are two major crises facing
6 us today.

7 In addition, New Jersey's water quality is
8 questionable, with more than five thousand
9 private wells being closed due to groundwater
10 contamination, and you want to locate the
11 incinerator above the Musconetcong River basin
12 aquifer, and near well fields that supply
13 Netcongs water.

14 I'm sure you've already been told about
15 air pollution control devices and air quality
16 tests. Well, many of the existing tests are
17 invalid because they have been conducted on new
18 facilities operating at peak performance. Tests
19 are rarely measured under routine operating
20 conditions which encounter temperature
21 fluctuations, start-ups, shut-downs, and
22 variability of MSW feedstock. Therefore, these
23 tests cannot predict routine emissions in the
24 lifetime of a facility.

25 The EPA Science Advisory Board's review of

1 data on emissions during poor or upset
2 combustion conditions found that hydrocarbon
3 levels rise and fall, that carbon monoxide
4 levels can not properly measure dioxins being
5 released, not to mention surges of concentrated
6 levels of lead, copper, cadmium and zinc. On
7 tests done by the Environmental Defense Fund on
8 just twenty-three facilities, twenty of them
9 were over the limit on lead, and twenty-one over
10 on cadmium.

11 There's enough information available at
12 public libraries, through federal documents,
13 environmental organizations, and scientific
14 journals -- and as you see and hear tonight --
15 that indicate that incinerators do pollute, and
16 that the risk to our health, environment and to
17 the future of our children far outweigh our
18 garbage problem, especially when there are
19 alternatives. We also need to stop garbage at
20 its source. Industry and manufacturers must
21 change their way so that we do not have to be
22 burdened with their waste.

23 Any intelligent, aware, conscientious
24 person can read the signs that earth is giving
25 us and realize that we must now try to make the

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1 changes that are necessary to clean up our
2 environment, not to add more poison to it.

3 (Applause.)

4 MS. REINHARDT: There is only one earth;
5 my question to you is that why have you chosen
6 incineration when it will only worsen the
7 problem by the amounts of pollutants that are
8 emitted?

9 I would also like to know, when I can
10 expect an answer to the question that I'm asking
11 you tonight?

12 A VOICE: They all look at each other.

13 MS. REINHARDT: A week, ten o'clock
14 Wednesday morning I'll be in your office? Give
15 me your answer.

16 DIRECTOR HYLAND: As quick as we can get
17 back to you, that's all I can tell you.

18 W. Davidson. Benson?

19 Aleta Katonak? Robert Bednarcik.

20 MS. KATONAK: I'm Aleta Katonak from Budd
21 Lake.

22 People here, and a lot of them have
23 laughed, know me very well and know I've spoken
24 my mind about drinking water and clean air, but
25 tonight I will speak from my heart and soul. I

1 know, you know, and already have researched all
2 the fact that you have heard tonight, I know
3 you're not stupid. Please, please, reconsider
4 for the sake of our children futures all
5 alternatives.

6 I'm scared for all, and I'm scared to
7 death of all the ugly cancer causing pollution.
8 I know, and I lived through seeing the death of
9 a life from cancer. Listen to our hearts, and
10 not the hearts of the few who have money and
11 political interest in the incinerators.

12 (Applause.)

13 MS. KATONAK: We as citizens can work with
14 you on composting, recycling, and all the
15 alternatives. Give these a chance. Give clean
16 and safe air a chance, give our children a
17 chance. We can show the world together these
18 alternatives can work. Heed you're speed. We
19 have time to show you we can do the other
20 alternatives.

21 Thank you.

22 (Applause.)

23 DIRECTOR HYLAND: Thank you.

24 Walter Burnstein? Mark Morrison?

25 Genevieve Zebora?

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1 What are we doing?

2 Mark Morison?

3 MR. MORRISON: My name is Mark Morrison.

4 I live in Succasunna. First I would like to
5 apologize for my yelling at you before
6 thinking -- I did not have an agenda -- thinking
7 that you were changing the whole ballpark by
8 opening it up the attorneys. That's about the
9 last apology. And I would really like to now,
10 if I could -- I don't really care to talk to you
11 people, because apparently that wasn't your
12 purpose for coming here tonight to have any type
13 of a give and take, it was basically for just
14 everybody to have their say and you would stand
15 up there and acknowledge the fact that we were
16 standing there.

17 I think the people out here are the people
18 I would prefer to talk to. Because the problem
19 is, we have deja vu here in Roxbury Township,
20 and maybe some of you people from other parts of
21 the county don't know what happened here a
22 couple of years ago. And I don't want to have
23 anybody's nose get out of joint about old
24 guard/new guard because that was nonsense that
25 was printed in the newspaper. I didn't know who

1 old guard/new guard was. All I know is one
2 night several years ago I spent until two
3 o'clock in the morning just like this meeting
4 and pleaded with the town officials, that I had
5 voted for, to not put a dog pound where we had
6 facilities for our children to play. And they
7 didn't listen, because the next night they took
8 out drawings, that they had already prepared
9 architects' renderings and gotten themselves on
10 the bandwagon again to get done with what they
11 wanted done.

12 Well, ladies and gentlemen, you all who
13 live in this area know what happened. We voted
14 those people out, because they did not listen to
15 the majority of the people who wanted something
16 else done, had put them in office, we put them
17 out of office, that's the only thing these
18 people understand. They have people who only
19 want certain things done, in certain areas of
20 this county. There are people who own magazines
21 that live in the southern part of this county
22 who call themselves Malcolm, and those people
23 had studies done six or seven years ago when the
24 SWAC Commission was done and said that they had
25 the perfect area for a landfill, but it never

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2 night several years ago I spent until two
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24 SWAC Commission was done and said that they had
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1 happened.

2 And it will never happen in that part of
3 the county. And I'm not sitting up here
4 applauding any of you people who said "not in my
5 back yard," because that's not what I was
6 indicating then. But we're talking power and
7 we're talking politics, and we get people up
8 here who cry how it's going to hurt their real
9 estate. We get people up here who say, let's
10 put it in Picatinny Arsenal and they forget how
11 they polluted up there with their bomb shells
12 and everything else, that's no alternative.

13 Don't cry about how it's going to affect
14 your real estate values and how it's going to
15 affect the plot of land that you've developed to
16 put a business on, don't cry about how it's
17 going to affect your neighbor. The thing is,
18 it's health, it's you, it's your children.

19 If I handed you \$10 million in one hand
20 and I handed you a cancer tube in the other and
21 I said there's your choices, life or death.
22 Which one are you going to hand back to me?

23 Don't talk to me, don't give these people
24 the opportunity to sit up there and say all
25 they're worried about is they don't want it in.

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1 Roxbury, all they're worried about is their
2 property values.

3 No, that's not what it's about. Because
4 if you get the word out -- there was an envelope
5 that says, put your money where your mouth is,
6 people. You get up here with these people, it
7 doesn't mean anything. You have to put the word
8 out to all the areas that are going to be
9 affected. Because Roxbury and Mt. Olive don't
10 mean anything, we don't have the clout. But if
11 you tell Denville, and Mountain Lakes and all
12 the other -- tell Diamond Jim down in
13 Washington, that his family is going to be
14 affected by the 20 mile an hour winds that
15 they're going to blow this stuff all over the
16 county and all of a sudden we're going to have
17 the kind of political clout that's necessary to
18 motivate these people up here.

19 (Applause.)

20 DIRECTOR HYLAND: Genevieve Zebora?

21 MS. ZEBORAA: Genevieve Zebora, Mount
22 Olive Township. I guess I'm a little too old to
23 worry about this, I'm over 70. I had cancer.
24 But why am I worried? But anyhow, can you
25 gentlemen as County Freeholders have a clear a

1 conscious? Are you in favor of giving a slow
2 death to 1,150 students at the Mt. Olive High
3 School, 660 students at the Tinc Road School,
4 385 students of the Mountain View School, 329
5 students of Mountain View North, and 479
6 students of the Upper Elementary School? When
7 the windows of the schools are not open, the
8 fresh air is pulled in to the buildings via
9 compressors. This air in daytime hours will be
10 filled with dioxins, acid gasses and a host of
11 other pollutants. These ingredients in the air
12 will also eventually enter the wells from which
13 the students drink water and the cafeteria uses
14 for cooking food. Did you know that the high
15 school is approximately one mile from the
16 proposed site of this monster, the incinerator?
17 The other schools are all nearby.

18 Did you know that there is a dairy farm
19 approximately one and a half miles away with 50
20 head of cows and 50 head of beef cattle grazing
21 serenely? Are you gentlemen at peace with
22 yourself when you go to bed at night?

23 DIRECTOR HYLAND: Walter Burnstein, Dr. --
24 can't read the last name. Tom Smillie, Ed
25 Czekat, William Healey, Frederick Moses.

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1 Brent Wanstreet, William Sheley. I can't
2 read this name at all. William Kish. I think
3 he spoke.

4 Lyle Rawlings, Steve Frankel.

5 THE WITNESS: My name is Lyle Rawlings
6 from Montville. I'm a professional engineer. I
7 work in the field of waste management.

8 The principal justification for mass-burn
9 incineration in Morris County has been the
10 impending shortage of landfill space for
11 municipal waste. Because currently landfill
12 space in New Jersey is running short, and siting
13 new landfills is very difficult, much New Jersey
14 waste is now being trucked to Pennsylvania and
15 other states. The cost of such disposal is
16 higher and the continued availability of such
17 landfill space is uncertain.

18 The contention that mass-burn incineration
19 will reduce the problem of the cost and
20 availability of landfill space can be examined
21 using figures from the 1988-'89 Resource
22 Recovery Yearbook published by Governmental
23 Advisory Associates of New York City. This is
24 it.

25 The Resource Recovery Yearbook is a

1 standard reference which is used by governmental
2 agencies, waste energy project developers and
3 Wall Street investment firms. It contains
4 information from every waste energy facility in
5 the United States, and the figures are supplied
6 by the owners or operators of the facilities
7 themselves.

8 Our neighboring state of New York has the
9 largest number of operating waste-to-energy
10 facilities as of this printing. The average
11 percentage of in-coming waste leaving as ash in
12 New York was 32 percent. This compares with 31
13 percent in New Jersey, according to the operator
14 of New Jersey's only operating waste-to-energy
15 facility, and 39 percent in Connecticut. These
16 figures do not include bypass materials, which
17 ordinarily comprise an additional 5 to 10
18 percent of the in-coming waste. Thus, in total,
19 36 percent to 49 percent of the waste sent to a
20 mass-burn facility can be expected to be left
21 for disposal as ash or bypass.

22 Thus, the degree to which a mass-burn
23 facility will reduce the problem of the cost and
24 availability of landfill space should be
25 examined against the alternative; recycling.

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1 The waste reduction that is possible from
2 recycling can be taken as approximately 50
3 percent of all wastes, if a combination of
4 source reduction, source separation, and a
5 mechanical recycling facility is employed.
6 Roughly speaking, source reduction can account
7 for 5 percent or more; source separation for 30
8 percent; and the mechanical recycling facility
9 for the additional 15 percent.

10 And aggressive program of education and
11 incentives to recycle; legislation to control
12 the types of packaging materials used by
13 manufacturers, retailers, et cetera; investment
14 in the necessary curbside collection, drop-off
15 center and mechanical recycling facilities; and
16 governmental action to encourage the creation of
17 new markets and the preservation of existing
18 markets for recycled materials is necessary in
19 order to accomplish this.

20 Dr. Donald Dieso of the New Jersey DEP
21 stated in a February 8th meeting at Mt. Olive
22 High School that the eventual statewide
23 recycling goals should be 50 percent, and that
24 such a goal could be attained. Indeed, the city
25 of Seattle, Washington recently chose to

1 establish a goal of 60 percent recycling as an
2 alternative to a mass-burn facility. After the
3 first year of the program, the City of Seattle
4 has already exceeded 30 percent of waste
5 recycled. The City of Washington, D.C. will
6 soon require 45 percent recycling. A large
7 number of communities in both Japan, and the
8 Netherlands, as well as many other communities
9 in Europe have already achieved recycling rates
10 in the neighborhood of 50 percent.

11 If we take 40 percent as the percentage of
12 waste left over under the incinerator
13 alternative, and 50 to 55 percent as the amount
14 left for the recycling alternative, it is
15 possible to qualitatively compare the
16 implications for the availability and cost of
17 landfill space for the two alternatives.
18 Incinerator ash from the Warren County, New
19 Jersey mass-burn facility has been classed as
20 hazardous waste by the EP toxicity test
21 approximately 50 percent of the time. The EP
22 toxicity test measures levels of potential
23 leaching of eight toxic metals from the ash. It
24 is not tested for other potential contaminants
25 such as dioxins, polyaromatic hydrocarbons, et-

1 cetera.

2 I'm going to have to skip a lot of this.

3 Warrant County ash must be tipped in Model
4 Cities facility near Buffalo, New York, at a
5 tipping fee of \$250.00 per ton. Essentially,
6 the 32 percent or so of material left over as
7 ash after incineration has been rendered more
8 dangerous, more costly, and more difficult to
9 find a home for than the waste which entered the
10 facility.

11 By contrast, the 50 to 55 percent left
12 over after recycling has actually been
13 beneficiated to some extent, much of the toxic
14 metal content has been removed with the removal
15 of the metals. Always some homogenization and
16 some drying will have taken place in the
17 mechanical recycling facility.

18 DIRECTOR HYLAND: Are you finished?

19 THE WITNESS: I'll just finish this
20 sentence.

21 So that the material that is left is not
22 as readily leacheable.

23 I have much more, but I'm sorry that I
24 don't have time to present it.

25 Thank you.

1 (PROCEEDING CONTINUES AS FOLLOWS AT
2 2:10 P.M.)

3 MR. D'AGOSTINO: You could enter it
4 into the record if you would like.

5 UNIDENTIFIED SPEAKER: I'll do that sir.
6 If I could interrupt for a second we have the
7 Township Engineer from the Township of
8 Roxbury who has a 7:00 meeting this morning.
9 He's not sure where he is on the list right
10 now but if these people --

11 DIRECTOR HYLAND: (Interposing) What's
12 his name?

13 UNIDENTIFIED SPEAKER: Richard Moody,
14 Township Engineer. My question is, if no one
15 in the audience would mind, if you don't
16 mind, could we put him on now, please?

17
18 (AUDIENCE APPLAUDS)

19
20 UNIDENTIFIED SPEAKER: Thank you.

21
22 MR. MOODY: My name is Richard Moody,
23 Municipal Engineer for the Township of
24 Roxbury. Mayor Dawson asked me to put some
25 information, put it in the testimony on the

1 New Jersey Sole Source Aquifer. This, as has
2 been discussed much this evening, is the
3 aquifer where the proposed incinerator and
4 ash landfill will be located. The sole
5 source aquifer was designated June 10th, 1988
6 and it's comprised of 15 drainage basins.
7 These drainage basins include the counties of
8 Warren and Hunterdon and portions of Sussex,
9 Passaic, Morris, Somerset and Middlesex
10 County and large counties in New York. The
11 basin is comprised of thin glacial deposits
12 and fractured bedrock. There's a depth to
13 ground water generally of less than
14 twenty-five feet. The aquifer serves an
15 approximate population of over 493,000
16 people. Eighty-six percent of the population
17 of this aquifer obtain their water from
18 underground sources, 46 percent through
19 public water supply systems and 54 percent
20 through domestic wells. The New Jersey
21 geological survey of the EPA further
22 designated, classified this sole source
23 aquifer region as one of high vulnerability
24 to ground water and surface water
25 contamination. What we have prepared for

1 your information is a USGA quadrangle and
2 shows the area that is basically Roxbury
3 Township and Mount Olive Township. The three
4 drainage basins included here are colored.
5 The Musconetcong Sole Source Aquifer which is
6 part of the state sole source aquifer region
7 is in the blue. In the green basically is
8 the South branch of the Raritan. And in the
9 yellow is the North Branch of the Raritan.
10 The site is located basically right here
11 which is in the Musconetcong basin. What
12 I've done from this is prepared a site,
13 specific chart in which I have identified the
14 incinerator site which is located in Roxbury,
15 the landfill site which is located in Mount
16 Olive. The light blue colors on the map are
17 the well fields that are located within a
18 half mile of the site. You have the
19 Musconetcong Water Works which supplies the
20 water for the majority of Netcong and you
21 have three well fields in Roxbury Township
22 that provide a majority of the water for the
23 western portion of the township. Overlaying
24 this map in the dark blue areas are the
25 national wetlands, inventory maps for the

1 wetlands adjoining the site and this black
2 line that runs through here is the dividing
3 line between the Musconetcong basin and the
4 South Branch of the Raritan Basin. As you're
5 aware the Musconetcong basin flows to the
6 Delaware River. The Raritan basin flows to
7 the Raritan river. The site straddles the
8 two basins. What you have here is a possible
9 contamination of both basins if an accident
10 should occur. In discussing this project
11 with the DEP, and I was with the New Jersey
12 Geological Survey Section this morning, they
13 have indicated that unless there are federal
14 funds for this project, the project will not
15 receive the sole source aquifer review; that
16 it will be passed through the DEP and at your
17 recommendation, if that's what it will be, it
18 will be passed and put into construction.
19 Roxbury Township would request that if this
20 project proceeds that the Freeholders would
21 be sure this does receive a sole source
22 aquifer review. You're potentially
23 contaminating the water of two drainage area
24 basins and we feel that would be a review
25 that would be necessary.

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(AUDIENCE APPLAUDS)

DIRECTOR HYLAND: Thank you.
Steve Frankel. William Loeffler. Wanda
Hilling. Bernadette, I think it's,
Parasolle. John Kovacs. Greg Borsinger,
Mary Jean Gerry, John Gerry, Bert Carr,
Elaine Concklin, Mark Orman. Nobody? James
Schiess?

MR. SCHIESS: My name is Jim Schiess.
I live in Mount Olive. Having listened to
everyone speak this evening the one thing I'm
sure of, if there was an eleventh commandment
that shall be, thou shalt love thy trash.
You'll approve this incinerator. No matter
what, you'll approve it, regardless of the
mercury, vinyl chloride and everything else
the people are talking about. The DEP knows
this is going to happen. Don't worry about
anything. There's a bill on a moratorium,
Mr. D'Agostino down there, number A4105, pick
four, play the number. Let's go along with

1 it a little bit. We will replace you.
2 That's a given. However, when we do --
3 Brendan Byrne is gone and this is such a good
4 deal, how will we remember you? I come up
5 with nine names for this incinerator. How
6 about the Michael Sawka Scorcher, right up in
7 the front or the Anthony Bucco Burner, the
8 Michael Dedio Destroyer, the Fred Rossi
9 Rooster, we'll vote on this, the Patrick
10 Hyland Heater, the Armand D'Agostino
11 Destroyer, the John Sete Scraper, the Jonn
12 O'Keefe Annihilator, the Carol Murphy Maimer.
13 Our problem is we allowed this to happen to
14 ourselves by buying products we can't get rid
15 of. That's our problem. We're at fault.
16 You're a little bit more at fault. Let's
17 just take a positive approach to this. Give
18 us a chance. Just give us a chance to
19 recycle this stuff. Let us work on it. We
20 haven't done a good job. That's not your
21 fault. Let's learn to, love thy trash, not
22 send it to hell. Thank you.

23

24

25

1 (AUDIENCE APPLAUDS)

2
3 DIRECTOR HYLAND: Ted Skouras? Raj
4 Pawar? Bernardine Greene is next, if she's
5 here.

6 UNIDENTIFIED SPEAKER: This is a public
7 hearing. I hope you heard the public. I
8 waited this long because I have a very urgent
9 appeal to you. I have a progressing lung
10 disease and it gets worse every time I face
11 air pollution. Unfortunately, I only have
12 five minutes to tell you my life story but it
13 all started in Michigan ten years ago when
14 the acid rain was falling and air pollution
15 was there. We moved to New Jersey and we
16 picked the best place in the State of New
17 Jersey which was Roxbury because the air
18 quality in Roxbury was very good. And what
19 happens now is when the incinerator is built
20 we're going to have all the nitrogen, oxide
21 sulfur dioxide, carbon monoxide, and I spend
22 my time, gentlemen, 80 percent of my time in
23 the Summer outside because I have to breathe
24 fresh air. I need oxygen. This is my story.
25 What is there -- what can you guarantee me

1 when you have this incinerator how long do I
2 have to live? Whose going to pay my bills to
3 the hospital? Is Roxbury going to have a
4 rescue squad ready for me whenever I have
5 collapse of my lungs? Those are my problems,
6 gentlemen. There's another severe problem
7 that I think you need to consider and that
8 is, that faces not only me but all the rest
9 of Morris County and you heard the engineer.
10 The pollution of the aquifer, how far you are
11 willing to go, you know. How much of a price
12 do we have to pay. We already are paying one
13 price. That is the radon that's coming from
14 the bottom, now you'll try to sink us from
15 the top by making air pollution.

16
17 (AUDIENCE APPLAUDS)

18
19 UNIDENTIFIED SPEAKER: (Cont'g.) I'm a
20 professional engineer. I worked on
21 incinerators, built incinerators and I
22 started them, and I'm sorry I did that
23 because every one of them started got shut
24 down two months later and the reason they
25 shut down, gentlemen, is not because they

1 were not the state-of-the-art, it was because
2 the pollution, the gases that were generated
3 were so toxic it ate right through the metal,
4 ate right through everything we put in there.
5 Finally, we had to shut it down. There was
6 no choice because otherwise we could kill the
7 people that were living around the area.
8 What happened to the incinerator? They got
9 shipped out of the state. Where?
10 Designation? Timbuktu, I don't know but they
11 got shipped out. So it's my plea to you, I
12 do intend to live long but if you go through
13 with this project you'll cut my life short.
14 I do intend to see my grand children. I do
15 intend to see my kids through college but I
16 don't think I can do that if I have to face
17 the pollution that you're going to generate,
18 and don't tell me that I don't know what
19 pollution is. Incinerators do pollute.
20 There is no known process known to man that
21 makes incinerators one hundred percent free
22 air pollution. It's not possible. It's just
23 not possible. Your incinerator your building
24 does not have enough high temperatures in it
25 to break down every molecule of isocyanate,

1 every polymer being manufactured in this
2 country to make the plastic harder, harder
3 than the steel, it's impossible. You're
4 going to have things in that incinerator that
5 you never dreamed of. You're going to have
6 people putting in the weed killer bags, will
7 be burning in there things you never dreamed
8 of. You'll have lawns that are sprayed with
9 the weed killers. That will be going in the
10 incinerator. Gentlemen, the only thing I can
11 say at this time is, please reconsider. It's
12 my life you're playing with. So, therefore,
13 that's all I have to say and those people,
14 the same age bracket are probably facing the
15 same thing. I'm not telling you a lie here.
16 I have a medical history that tells me every
17 year I fail my physical because my lungs do
18 not have enough breathing capacity. I'm
19 tired of listening and getting routed from
20 place to place and this is the place I intend
21 to stay. Thank you, gentlemen.

1 (AUDIENCE APPLAUDS)

2
3 DIRECTOR HYLAND: Bernardine Greene
4 here? Tom Johnstone? Rose Mandala.
5 Theodore Wilson.
6

7 UNIDENTIFIED SPEAKER: Mr. Hyland,
8 freeholders, there's been a lot of factual
9 information, statistical information,
10 scientific information, and more recently
11 very emotional personal testimony presented.
12 I have none of that to present. I think what
13 we have to remember is a couple of basic
14 things. When the first discussion of the
15 incinerator started I felt this was the final
16 discussion to the garbage problem. I have
17 since learned this is as outdated as can be,
18 cannot take nothing and create something.
19 Neither can we take something and create
20 nothing. A good magician can make it seem so
21 but it's an illusion which the naive believe.
22 Filling a hole with ash and burning it does
23 not make it go away. After burning it may
24 seem to be more noxious and lethal in such a
25 concentrated form than as it would have been

1 in an old-fashioned landfill unburned.
2 The irony of this is that it would be done in
3 the name of social progress. In addition to
4 land, air pollution, we have another
5 by-product not found merely with smelly
6 garbage dumps but air pollution respiratory
7 problems because of its insipid nature will
8 strike without warning and insult us. If
9 you're willing to support an incinerator then
10 a closed landfill machine should be reopened.
11 This could be no worse maybe in respect to
12 air pollution preferable to what is being
13 proposed here. As you have seen, we're not
14 sheep to be led to slaughter, blinding,
15 believing anything and everything told us by
16 those in authority or by those experts in the
17 field who provides the assurance on the one
18 hand by counting the financial stakes on the
19 other hand. I realize that there are those
20 who generally believe this will solve all
21 their problems; are creating a love canal and
22 Times Beach. (phonetic) The names may be
23 forgotten because of the lapse of time but
24 the fallout that occurs, social and
25 political, from a project of this nature will

1 be within our lifetime as well as that of our
2 children. If indeed this remains a die hard
3 proponent on this Board that believes this
4 will not negatively affect property values,
5 the quality of life, health of their child,
6 does not object to having this in their
7 backyard, let them make an offer for a fair
8 market valuation for my home lying in the
9 path of this fallout and live there and risk
10 his investment, his health or her health and
11 their families. I don't expect any offers
12 because, ladies and gentlemen, to be leaders
13 you must have a majority of the people behind
14 you. You do not on this issue. To be an
15 elected official mandates responsiveness.
16 You have chosen to show no sensitivity and
17 chose not to respond. You are all elected by
18 the people, remember this, and accept the
19 obvious will of the people. They represent
20 the sampling of over 2,000 people here, the
21 people at 3:00 in the morning waiting for
22 their invoice to be heard. We're not
23 carpetbaggers from Bergen or Passaic County
24 but property-owning voters from Morris
25 County.

1 Please, please do not forget why you
2 are here.

3
4 (AUDIENCE APPLAUDS)

5
6 DIRECTOR HYLAND: Madelyn Hoffman here?

7
8 MS. HOFFMAN: My name is Madilyn
9 Hoffman. I'm the Director of the Grass Roots
10 Environmental Organization and I live in
11 Bloomfield which is in Essex County.

12 I work with over one hundred citizens
13 groups across the State of New Jersey who are
14 fighting different environmental problems and
15 of those one hundred groups perhaps thirty
16 are concerned directly with proposed garbage
17 incinerators in their communities or
18 concerned about establishing recycling
19 programs in their communities or in their
20 county.

21 I have been working on this issue for
22 quite a long time and I think this is a first
23 for me to be speaking at about 3:00 in the
24 morning to a group of Freeholders and in a
25 group, there's still quite a sizable audience

1 here, and I think residents of Morris County
2 ought to be congratulated for the amount of
3 time and effort they put into preparing
4 testimony for you here tonight and I hope
5 that you take into account their efforts,
6 their concern and their dedication because I
7 think you read another fifty names of people
8 who weren't here because they couldn't stay
9 and so if all of the people here who are
10 signed up get to speak I still think you
11 probably heard only the tip of the iceberg in
12 terms of the sentiment in this county against
13 the incinerator in Roxbury, Mount Olive,
14 Rockaway, Parsippany or anywhere else in the
15 county and I hope you take it into account.

16
17 (AUDIENCE APPLAUDS)

18
19 MS. HOFFMAN: (Cont'g.) I think what's
20 happening here in Morris County, too is
21 representative of what's happening all across
22 the state and across the country. The number
23 of groups, the sizes of those groups are
24 growing all the time and the intensity of
25 their feelings on this issue are growing and

1 the amount of information, the facts, the
2 research that they have developed is growing
3 also and the more people look at it and the
4 more they do on this issue the more they're
5 convinced incineration is the wrong way to
6 go.

7 I was just at a program last Monday
8 that was sponsored by the United Nation's for
9 Youth. Approximately 2,000 students many of
10 them from New Jersey, many of them from New
11 Jersey high schools, some from New Jersey
12 middle schools, even some fourth and fifth
13 graders, and the message there was all the
14 same. What we're trying to do is to
15 re-establish some sort of control over our
16 way stream. What we're trying to do is to
17 recycle all the materials that can be
18 recycled, to compost all the materials out of
19 our way stream that can be composted and to
20 use biodegradable or recycling packaging so
21 materials that can't be recycled could be
22 recycled later on.

23 This is what people all across the
24 state and all across the country of all ages
25 are crying out for.

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(AUDIENCE APPLAUDS)

MS. HOFFMAN: (Cont'g.) And this is what you as Freeholders, as government officials that are supposed to represent the people should also be concerned about because this is what your constituency is trying to tell you. Why are they trying to tell you this? Because, number one, they want to save and conserve resources.

Number two, they want to prevent further pollution of our air, water and soil and you have heard many times tonight from many different people that New Jersey is already in very sad shape as far as air pollution, water pollution and soil pollution is concerned.

And, number three, the reason they want to do this is they want to save money, save money for the county, save money for the taxpayers, save money all the way around so that money can be spent on much more productive, constructive kind of endeavors rather than being funneled into a garbage

1 eating monstor.

2 We have everything working in our
3 favor. We have the mix going for us. We
4 have the environment going for us. We have
5 everything going in our favor and yet
6 something is holding it up.

7 What's holding it up? Well, you heard
8 over and over again tonight that we have
9 certain people in this state representing
10 certain interests that coming together in an
11 organization like The New Jersey Clean Air
12 Act to say they're here for a clean tomorrow
13 and yet there are consulting firms that work
14 for the counties that are going ahead with
15 incineration projects. They're making money,
16 coming up with studies counties want to hear.
17 They're the builders, the construction
18 industry. They see it as the biggest boon to
19 the industry since nuclear power. Some of
20 the labor organizations who have been sold a
21 bill of goods by their employers, some of the
22 solid waste disposal companies including
23 waste management is the largest waste
24 disposal company in the country. Don't tell
25 me they are unbiased. Don't tell me they

1 don't have any other interest in this besides
2 what would be best for them and best for
3 business.

4 I believe that one of the reasons that
5 we're seeing more and more of The New Jersey
6 Act at places like this or in Ocean County,
7 twenty-four hour radio adds they are getting
8 nervous. They're feeling the heat from
9 people like the people here in this room
10 tonight, like the thousands of people in
11 other communities across the state who have
12 spoken out on this issue and they feel they
13 must appear in some places like this in order
14 to fight back. They have money, yes, but the
15 people of the county and the people of the
16 state have power in numbers and that's what
17 they have shown here tonight, and that's what
18 they will continue to show because they have
19 been fighting this for quite a long time,
20 will continue to do it as long as Freeholder
21 Boards, the State DEP, and so on continue to
22 insist on going ahead with garbage
23 incinerator projects.

24 Just a couple of more things. I waited
25 out this long, I just want to finish up with

1 my thought and that is the public really does
2 understand the true cost of incineration, are
3 left to their own devices without the big
4 money interests spending hundreds of
5 thousands of dollars on propaganda, would
6 project such proposals. They know about ash
7 deposits, know about contracts that lock us
8 into providing a certain amount of garbage or
9 providing the money instead, know about the
10 air pollution, know about how the contracts
11 are set up so most of the liability is borne
12 by the county taxpayers and not the
13 incinerator companies, building the
14 incinerator, know about how much it costs to
15 construct and operate these incinerators,
16 know about the cheaper, safer alternatives.

17 I think what they're asking for is a
18 little bit of old-fashioned democracy here
19 looking to those who are supposed to
20 represent them to make decisions in their
21 interest to be consistent with what they
22 believe and what they're willing to spend
23 until 3:00 or 4:00 or 5:00 in the morning
24 convincing you you ought to be doing the
25 same.

Thank you, very much.

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(PROCEEDING CONTINUES ON FOLLOWING
PAGE)

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1 DIRECTOR HYLAND: Is there anyone else
2 that signed up on the public list that would
3 like to speak?

4 MR. JOLLEY: I came in after the list had
5 been closed, I had a planning board meeting but
6 I was wondering if I could speak for two
7 minutes.

8 DIRECTOR HYLAND: Go ahead. State your
9 name please for the record.

10 MR. JOLLEY: My name is Scooter Jolley,
11 J-o-l-l-e-y.

12 Through the course of the evening I heard,
13 as the gentleman mentioned before, that there
14 are emotional arguments and the tempers
15 sometimes run high. I tonight that myself
16 sitting in the last few rows here had a couple
17 of moments where I directed negative energy
18 towards the people sitting on the dais up there,
19 and many other people in this room have as well.

20 One of my concerns is that currently my
21 wife is fighting cancer. We don't have an
22 incinerator now, but she's got cancer
23 nonetheless, and for whatever reason it's in her
24 body. And talking from a purely personal point
25 of view -- I don't know what the experience with

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Walter J. Perelli, C.S.R.

1 any of you people up there has been with
2 cancers -- but under chemo therapy medication
3 and that whole program of rehabilitation and
4 getting better, there is hours and days where
5 you can't do anything. There are times when
6 your hair falls out, there are times when you
7 can't deal with your family and with your kids
8 because of what the medication does to your
9 body, trying to stop the other things that are
10 doing things to your body.

11 If there's one iota of a chance of anyone
12 being contaminated by a toxic material emanating
13 from the smoke stack, I think it's a terrible
14 idea. You haven't lived with it, and I have.
15 And that's from a source that we don't know. If
16 we know that there's any possibility that cancer
17 causing agents will emanate from this smoke
18 stack, then I think it's incumbent upon us to
19 say no to the incinerator. I think it's very
20 important.

21 The second point that I would like to make
22 regarding the hired assassins that came in from
23 Bergen County is that in a moment of passion and
24 representing the other side of this issue, with
25 a number of people that were here, they should-

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1 have expected to be targets of passion. In a
2 very unprofessional way -- and we're
3 adversaries, we're talking as professionals
4 here, in a very, very unprofessional way, one of
5 the representatives that came in with ACT made a
6 horrendous statement to a member of the audience
7 that was very personal and very demeaning. And
8 the reason I bring this up is not to embarrass
9 the individual in the audience but just to let
10 you know the quality of people that these
11 organizations hire to represent them.

12 I thank you for your time and your
13 consideration. Thank you.

14 (Applause.)

15 DIRECTOR HYLAND: Yes, good morning.

16 MS. LAUREYS: Good morning.

17 Is this okay? Can you here me?

18 DIRECTOR HYLAND: Sure.

19 THE WITNESS: Okay. I'm Ceceia Laureys.
20 I'm a member of the Netcong Borough Council, the
21 Environmental Commission, and Im also Recycling
22 Coordinator for Netcong.

23 I'd like to point out the fact that there
24 is at present only one mandated solid waste plan
25 in the State of New Jersey. There only one

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1 proven alternative method of disposal.

2 The New Jersey Recycling law was passed in
3 April 1987. Yet for some strange reason,
4 despite an enormous solid waste disposal
5 problem, the full implementation of that law was
6 delayed until April of 1989, a full two years
7 later.

8 Well, 1989 is here now. Yet, many
9 communities and many commercial establishments
10 have hardly begun to put anything but very
11 minimal efforts into recycling.

12 The Morris County solid waste plan calls
13 for incineration of non-recyclable trash; but,
14 what it really will mean is incineration of
15 non-recycled trash. It makes very little
16 sense --

17 (Applause.)

18 MS. LAUREYS: It makes very little sense
19 to consider very costly environmentally risky
20 incineration solutions before we have really
21 given recycling a fair chance. We need to find
22 viable methods and markets for recyclables,
23 especially the plastics. We need to develop
24 methods to collect and remove household
25 hazardous waste from the waste stream; the

1 batteries, the aerosol cans, the cleaners, et
2 cetera.

3 The nation's waste stream is estimated to
4 consist of approximately thirty-five and a half
5 percent paper of all kinds; eight and a half
6 percent glass; 9 percent metals; 7 percent
7 plastics; 20 percent yard waste; 9 percent food
8 waste; 9 percent a combination of leather,
9 rubber, plastics and textiles and wood. This
10 totals 98 percent. The other 2 percent is
11 miscellaneous inorganic wastes.

12 Real efforts must be made to separate,
13 recycle, reuse and compost much more of these
14 materials than we are now doing. Only after
15 such efforts have been made can we realistically
16 make a statement as to how to dispose of the
17 balance.

18 Incineration only reduces 75 percent by
19 weight. The 90 percent by volume that we speak
20 of only includes the air space that's inside of
21 most of the plastics and other items. If we
22 recycled 70 or 80 percent, it would be much more
23 cost effective to landfill the remaining 20 or
24 30 percent.

25 Incineration should be only a last resort,

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1 not a first choice.

2 (Applause.)

3 MS. LAUREYS: Very few incinerators or
4 maybe none at all should be built. If a small
5 percent of the money and the resources that had
6 been pledged to incineration in the State of New
7 Jersey were diverted to improve recycling
8 methods/recycling markets, the need to
9 incineration rate might be removed.

10 Every one here who is against incineration
11 must make a very personal commitment, as I did
12 many years ago, to recycle as much as possible.
13 If we're not part of the solution, we're part of
14 the problem. The State has yet to put teeth
15 into the recycling law. Haulers and the
16 transfer station are still not fined for
17 accepting recyclables in the trash loads.

18 And lastly, I find it very hard to believe
19 that a town like Morristown with 17,000 people
20 totaled only 571 tons of residential recyclables
21 in 1988. This compared with Netcong, a town of
22 only 3500 people with very little money and very
23 little resources, which totaled 455 tons of
24 residential recyclables.

25 (Applause.)

1 MS. LAUREYS: Likewise, Morristown has so
2 many commercial units, and yet totaled only 474
3 tons of commercial recyclables in '88, compared
4 to Netcong's 300 tons of commercial recyclables.

5 Such figures clearly show that recycling,
6 which is, remember, mandated by law, needs to be
7 vastly improved before we proceed to even
8 consider all these other very costly solutions,
9 such as incineration.

10 Thank you.

11 MR. LOHBAUER: Good morning, Freeholders.
12 My name is Mark Lohbauer, I'm from Camden
13 County, and I've come all the way up here
14 tonight because I'm basically a NIMBY. New
15 Jersey is my back yard.

16 And I wanted to be sure -- thank you.
17 Actually I'm on the Board of Directors of a
18 couple of groups that have interest in what
19 you're doing here tonight. One I'm proud to
20 say, New Jersey Grass Routes Environmental
21 Organization from which you've just heard
22 Executive Director, Marilyn Hoffman, and Work on
23 Waste USA, an organization that's devoted to see
24 that sensible approaches are taken to the waste
25 stream, and people are given a meaningful

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1 opportunity to recycle and compost and reduce
2 their waste rather than plunge into the burning
3 of it.

4 So that's why I've come up here. And
5 frankly I couldn't miss this, because this is
6 really the first public siting hearing in the
7 year IAW, "after Warren." You know, I frankly
8 expected to see a situation where we had
9 Freeholders looking more like people who had
10 unknowingly wondered into a cow pasture and
11 discovered there was stuff all around them that
12 they were trying to miss, and we haven't seen
13 that tonight and I'm surprised. I really
14 thought that after seeing the horrible
15 experience that Warren County has gone through
16 that we would see other counties tremendously
17 enlightened by that and try to find ways to
18 avoid getting into incineration. But maybe we
19 haven't seen the AW experience yet.

20 I know that the other people we've heard
21 here tonight have been concerned with asking you
22 the right question, hoping that, you know,
23 something will stimy or make you think of an
24 answer. But the fact is you're asking a
25 question through this hearing; and that is, have

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1 we chosen the right site for a Yulu; you know, a
2 local, undesirable land use?

3 That's really the answer to another
4 question, which is, what are we going to do with
5 our trash? That's the question on all of our
6 lips, of course.

7 But there's a better question. And the
8 better question is one that I would really like
9 you to think about, and that is: Why do the we
10 presume that we have to make trash into in the
11 first place? Why can't we work on waste
12 prevention strategies rather than waste managing
13 strategies? And I think that's really what the
14 bulk of the people who have been talking to you
15 tonight have been saying. They're ready to do
16 their part to stop making the trash that you are
17 responsible for dealing with in the first place.
18 They're willing to go through the steps of
19 separation, they're willing to go through what
20 it takes to minimize the amount of what we would
21 call trash, stuff that can't otherwise be
22 recycled or composted or resued

23 And I want you to know that, sure,
24 everybody is interested in that. You've heard
25 DEP say, sure, we love recycling too and we're

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1 into reduction. Come on, are they really?
2 They've told you they have a four-prong strategy
3 and the first two prongs are reduction and
4 recycling. But, you know, has the State spent
5 dime one on reducing waste in New Jersey?

6 You know, if they were to take some of the
7 money that they're paying to these people in
8 Alliance for Action and ACT, and some of the
9 consultants who get paid all that fancy money to
10 come in and give you these great plans, if we
11 took some of that money and put it into waste
12 reduction we would probably cut New Jersey's
13 waste stream by a third. But we don't do that
14 we put all the money instead into incineration.
15 We have the State giving interest-free loans to
16 projects that -- just the amounts just dwarf the
17 money that's being devoted to recycling. That's
18 where the problem is.

19 And if Morris County falls in line like
20 all the other counties and says, yean, we're
21 willing to follow the State's wonderful plan, it
22 sounds reasonable, then you're making the same
23 mistake. You're really -- you can't do that.

24 The fact is, a mass-burn plant can't
25 survive with anything more than token recycling,

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1 and that's what you're condemning Morris County
2 to if you build this plant.

3 (Applause)

4 MR. LOHBAUER: So, I'll put it this way:
5 If Dr. Paul Connett who heads up our
6 organization, Work on Waste, says, yeah, you
7 heard the wonderful news, an incinerator will
8 reduce your waste stream, maybe three tons of
9 trash can be boiled down to one ton of ash, but
10 if you recycle you take that same three tons of
11 ash and get one ton of recyclables, one ton of
12 compostable, and one ton of education.
13 Education that the public will know this stuff
14 we don't want in our waste stream anymore, we
15 don't want to buy in. We don't want to make
16 it -- maybe you to legislate it out.

17 That's the direction we should be going
18 into. Morris County shouldn't be a trash
19 junkie. A wonderful term we heard coined here
20 tonight. You don't want to waste your real
21 estate values, your health or your quality of
22 life. The question for you is: Do you want to
23 be the first county after Warren to make the
24 significant progressive step toward intensive
25 recycling, or do you want to be just another

1 county who stepped in another cowslip?

2 Thank you very much.

3 DIRECTOR HYLAND: Anyone else,

4 MR. CARDONI: Joe Cardoni from the sleepy
5 little town of Flanders. And I'm getting pretty
6 sleepy.

7 DIRECTOR HYLAND: Maybe you ought to go
8 home.

9 MR. CARDONI: Tomorrow I look forward to
10 that cold shower that's going to wake me up from
11 this long evening. And that's the one issue
12 that I want to talk about here.

13 What do the Shorham Nuclear Power Plant,
14 Three Mile Island and the Bridgeport,
15 Connecticut municipal garbage incinerator have
16 in common? They all costs hundreds of millions
17 of dollars to construct. They all have been
18 shut down due to operational and safety
19 concerns, and they're all located on large
20 rivers, giving them an abundant supply of water.
21 Any steam powered generating plant requires
22 extraordinary amounts of water to operate.

23 A 1300 ton per day water cooled garbage
24 burner requires close to a million gallons of
25 water per day. A more expensive air-cooled

1 plant would use close to 200,000 gallons of
2 water per day. A significant portion of that
3 water is used in the process system. Process
4 water will become contaminated with hazardous
5 chemicals and toxic metals when used to quench
6 the incinerator ash. This contaminated water
7 will require treatment.

8 The site you're considering is
9 conspicuously missing one of the elements common
10 to the plants I had mentioned earlier; that
11 would be the river in close proximity. Any
12 water needed to operate this facility would be
13 pumped from an already taxed underground water
14 system. In an area where municipalities have
15 enacted water restrictions during three of the
16 last four summers, the Freeholders plan to draw
17 hundreds of thousands of gallons of water per
18 day.

19 According to a study conducted by Roy F.
20 Weston, Consulting Engineers, the group hired by
21 the County to evaluate the site, any significant
22 water use would adversely affect the neighboring
23 wells. The Weston report also stated that the
24 water table on the site is relatively high.
25 This would require that during construction and

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1 excavation enormous amounts
2 have to be pumped out and dra
3 wetlands. Another concern cre
4 water table is the greater vul
5 contamination by any ground lev
6 pollution.

7 I have a set of questions
8 addressed with respect to water s
9 treatment.

10
11 Number 1. Why is this site
12 considered when your own consulting
13 indicated that the water supply would
14 insufficient?

15
16 Number 2. During construction
17 operation, what effect would the incre
18 demand for water have on present level
19 consumption and on the requirements for
20 development?

21 Number 3. What would happen to th
22 at the facility on days which water restr
23 prohibit me from watering my lawn?

24 Number 4. What method of treatment
25 propose for the contaminated water?

Number 5. Has an evaluation been
performed to determine the impact that water

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1 discharge and contamination will have on
2 federally protected wetlands?

3 Number 6. If, as it would appear obvious,
4 the site does not have adequate water supplies
5 and is not the best suited geologically for an
6 incinerator, why has the Freeholder Board not
7 planned for the implementation of a backup non-
8 burn plan? A plan that would not require the
9 excessive amount of water and would be put on
10 line in far less time in order to help meet your
11 1993 deadline.

12 As long as I've got two more minutes.
13 There's been an article recently in the Roxbury
14 Register where Mr. O'Keefe was quoted as
15 saying, and I quote "I think that the
16 alternatives to incineration have been examined
17 ad nauseum. There are no alternatives to
18 incineration," end quote.

19 I would ask of you, Mr. O'Keefe, to
20 produce for public review any comprehensive
21 examination the Freeholders have undertaken
22 related to alternative methods of solid waste
23 management. Major metropolitan areas such as
24 Seattle, Washington and San Diego scrapped
25 dangerous and costly incineration plans in

1 favor of intensive recycling, composting and
2 segregated land-filling. Have you personally
3 contacted any of these officials? Mr. O'Keefe,
4 your insistence to push an incineration policy
5 which could jeopardize the economic foundation
6 of the entire county is what should be examined
7 ad nauseum.

8 What is the insensitive behind your love
9 affair with an incinerator industry that has
10 shown itself to be a proven loser rather than a
11 proven technology? Are you willing to guarantee
12 that you will not accept a position similar to
13 former DEP Commissioner Dewling, waiting at the
14 end of our smoke stack?

15 An elected government official should
16 remain objective with regard to the magnitude of
17 our garbage crisis. Your -- the favoritism you
18 are so blatantly displaying by discrediting
19 workable alternatives stinks of partiality. A
20 policy that considers the welfare of all your
21 constituents is not merely appropriate, it is
22 demanded.

23 And let me just say in closing that I'm
24 here tonight because I care about the community
25 and my way of life. Nobody had to pay me to

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1 attend, like these pro-incinerator factions
2 which left here about 11:00 o'clock.

3 DIRECTOR HYLAND: Anyone else from the
4 public?

5 A VOICE: I'm speaking again but I won't
6 take five minutes.

7 It's twenty after three in the morning, an
8 ungodly hour for the end of a hearing, and I
9 presume in your opinion, anyway, this is the end
10 of the hearing. Let me state that in my opinion
11 this should not be the end of the hearing.

12 (Applause.)

13 A VOICE: I have sat here for the last at
14 least four hours and heard you rattle off names
15 of people who for any number of very legitimate
16 reasons, be it work, be it family or otherwise,
17 have had to leave this hearing which commenced
18 at approximately eight o'clock tonight.

19 A VOICE: Babysitters.

20 A VOICE: It is unconscionable in my mind
21 that there is not a continuation of this hearing
22 at some future point in time.

23 (Applause.)

24 A VOICE: In order to afford those people
25 who took the time and effort to come out, sign

1 up, and make a statement -- whether that
2 statement was repetitious or not, it's
3 irrelevant. They are the public that you are
4 here to hear, and you're denying them access.

5 DIRECTOR HYLAND: Anybody else?

6 MS. LAUREYS: Cecelia Laureys.

7 A lot of people asked me why Netcong
8 hadn't done anything, why there were not more
9 Netcong officials here. Sad to say, the feeling
10 was that our Council, well, what's the use,
11 they're going to do what they want anyhow.

12 I don't believe that that's accurate.
13 Another thing, when I keep talking about
14 recycling, some of the people on our Council
15 say, oh, sure in Netcong we're saving every
16 little scrap of paper and yet places where we
17 work up the line, they're throwing tons of paper
18 in the garbage, you know, in these big office
19 buildings. And the contention was, well, what's
20 the little guy, the average residential home
21 owner got, how can we compete with big business,
22 who do not want to put the effort and time into
23 recycling. And that's what's got to be it.

24 Now, then, as I said, if we have recycling
25 and really give it a chance, then maybe we can

1 consider these other things. But it isn't
2 apathy, it's a lot of people just feel, what's
3 the use. And that's I think why Netcong is not
4 here, plus we left a meeting at eleven-thirty.

5 DIRECTOR HYLAND: Thank you.

6 Anyone else?

7 Sir, you have five minutes.

8 MR. GERMINE: Thank you, that's more than
9 I had before.

10 DIRECTOR HYLAND: That's your fault. Go
11 ahead. Start the clock, please.

12 MR. GERMINE: Okay. Thomas J. Germine,
13 I'm representing Concerned Citizens of Mt.
14 Olive -- Concerned Citizens of Morris County.
15 It was Concerned Citizens of Mt. Olive.

16 I want to say, you can be heard over the
17 microphone, Mr. Hyland, and it can be heard
18 before when you referred to me as a wise ass,
19 too. And that's on tape.

20 Now, you fellows up there, and
21 Freeholders, maybe I'm a wise ass because I
22 don't show sufficient deference for your office,
23 but in my opinion, you're working for me not the
24 other way around, fellows and ladies.

25 (Applause.)

1 MR. GERMINE: And you're working for me
2 under a very stringent set of laws, which you
3 seem to have forgotten about. I'll read you
4 some of them. It says here that the Legislature
5 declares it to be the policy of this state to
6 provide citizens and municipalities with
7 opportunities to contribute to the development
8 and implementation of Solid Waste Management
9 Plans.

10 (Applause.)

11 MR. GERMINE: Is that what you are doing
12 here tonight, Mr. and Mrs. Freeholders and Mr.
13 D'Agostino who ha instructed members of the
14 Board to keep their mouth shut and under no
15 circumstances make any statements or under any
16 circumstances repond to any questions or ask any
17 questions.

18 Is that the nature of a legislative fact
19 finding hearing, to sit there, dumb and mute?
20 And even when the simplest question is posed, to
21 look at each other in amazement as you've been
22 doing tonight? Is that giving the citizens of
23 this county an opportunity to contribute to the
24 development and implementation of the Solid
25 Waste Management Plan?

1 Don't answer, I don't expect you to.

2 Now, one of the things I was trying to say
3 as I was being dragged away before is that not
4 only are you doing a siting through this
5 amendment to the Solid Waste Management Plan,
6 but you have not advised the public that this
7 amendment also increases the capacity of the
8 plant incinerator from 1,000 tons a day, which
9 is the current maximum listed in the 1985
10 amendment, to 1300 tons a day. So not only are
11 you not taking into account increased recycling;
12 not only are you violating the statutory
13 requirement of making maximum practical use of
14 resource recovery procedures; not only are you
15 freezing recycling at the 13 percent level; but
16 you're turning the clock back and you're
17 actually increasing the capacity of your burner
18 as you go along.

19 Now, I have a couple of questions as to
20 how this site wound up in Roxbury and Mount
21 Olive Township. And I have a couple of
22 questions as to why we hear this talk about
23 reopening Combe Fill North. Could it have
24 anything to do with the fact that the Mt. Olive
25 site which may be now used as a landfill site,

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1 will require four and a half million dollars of
2 reclamation work as a result of the quarrying
3 operations there? And that the quarry owner
4 would otherwise be responsible for those costs
5 if the county didn't come in and pull them out
6 of the fire?

7 And is it also true, I ask you, that three
8 of these Freeholders had, as a major campaign
9 contributor in their primary election run last
10 year, this very same quarry owner?

11 A VOICE: That's bull shit.

12 MR. GERMINE: Now I ask you another
13 question about Combe Fill North that you're so
14 anxious to reopen. Is it not true that one of
15 the principal prior owners and operators of that
16 landfill, who would likewise stand to be
17 involved with millions of dollars of clean-up
18 costs for the Superfund clean up of that site,
19 which the county by using it and reopening it
20 would bail them out on, is it not true that
21 those individuals were also major campaign
22 contributors to three of the Freeholders in
23 their primary campaigns of 1988?

24 A VOICE: We can guess which three they
25 are.

1 MR. GERMINE: Now, in addition to giving
2 us a bigger plant, you're also proposing through
3 this amendment to give us a plant that not only
4 burns residential waste, and this is in your
5 proposed plan amendment, but that will burn
6 construction debris, animal carcasses and food
7 processing waste, oil spill waste, chemical
8 waste, pesticides and asbestos, as well as
9 non-infectious hospital waste will be burned
10 under the proposed plan amendment in the county
11 incinerator.

12 This is regardless of the fact that all of
13 these types of waste, Type 13, 25, and asbestos,
14 are specifically precluded from being combusted
15 in incinerators by regulations of the New Jersey
16 Department of Environmental Protection.

17 DIRECTOR HYLAND: Would you wrap up,
18 please?

19 MR. GERMINE: Thank you very much.

20 DIRECTOR HYLAND: Thank you.

21 (Applause)

22 DIRECTOR HYLAND: Anyone else?

23 MR. KEVITZ: Mr. Director, I would like to
24 enter several exhibits into the hearing.

25 The first one is C-1, a Morris County MUA

1 resolution, recommending the inclusion of the
2 Roxbury Township site for waste energy facility,
3 dated 4/689; the second one, C-2, Morris County
4 SWAC resolution dated 4/12/89; the third one,
5 C-3, Morris County Solid Waste Management Plan
6 update, dated May, 1985; the fourth one is C-4,
7 Morris County Solid Waste Management Plan
8 amendment dated August, 1987; C-5, is a Morris
9 County Solid Waste Management Plan amendment
10 dated November, 1987; C-6 is the Morris County
11 Solid Waste Management Plan amendment dated May
12 1989; C-7, is the Morris County District
13 Recycling Plan amended October 1988; C-8 is the
14 Morris County Solid Waste Management Plan
15 amendment dated February, 1989; C-9 is the
16 Morris County Resource Recovery Facility site
17 Suitability Evaluation Report, dated April 1989;
18 C-10 is a proof of mailing dated April 28th,
19 1989; C-11 is a proof of mailing dated April
20 14th, 1989; C-12 is the second proof of mailing
21 dated April 14th, 1989; and C-13 is a proof of
22 publication, dated April 21, 1989.

23 DIRECTOR HYLAND: Is there anyone else
24 wishing to be heard tonight -- I mean, this
25 morning. Seeing no one --

1 MR. WITMAN: I only have two quick
2 questions. The first one is, with all of the
3 questions and all of the exhibits that were
4 asked here this evening. Are we the public
5 going to get any type of response from you
6 whatsoever, and when?

7 My name is Leonard Witman.

8 DIRECTOR HYLAND: We will respond on that
9 as soon as we can. It will probably be when we
10 vote on it I imagine, but maybe sooner; I don't
11 know.

12 MR. WITMAN: Will we have a response
13 before the vote or will it be after the vote?

14 DIRECTOR HYLAND: I don't know.

15 A VOICE: You said before, before.

16 DIRECTOR HYLAND: Probably not until after
17 the vote I imagine.

18 MR. WITMAN: So you will have a vote on
19 this and after that you will give us a reason
20 for the vote in responding to all the materials?

21 DIRECTOR HYLAND: Some of the people will
22 give a reason the night they vote.

23 MR. WITMAN: Could we get the answers to
24 the questions we've asked as to the questions
25 requested --

1 DIRECTOR HYLAND: I don't see why not.

2 MR. WITMAN: To all the questions that
3 we've requested?

4 DIRECTOR HYLAND: I don't see why not.

5 MR. WITMAN: Thank you.

6 DIRECTOR HYLAND: Thank you. Jim?

7 (Continued on next page).

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(PROCEEDING CONTINUES AS FOLLOWS:)

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3 MR. JAMES JULIAN: I'm sorry I was
4 late. I was coming back from a trip. I
5 yelled to anyone else in the audience. For
6 the record, it's 3:33 in the morning. This
7 hearing has been going on since 8:00 tonight.
8 A couple of thoughts. James Julian, Roxbury
9 Township Council. Before I left I saw a
10 newspaper article on incineration in the
11 Morris County Daily Record, would like to
12 point out I was on this site in 1979 but it
13 was not as an incinerator site but was as a
14 resource, separation resource recovery type
15 of location. Mr. Mc Phearson (phonetic) had
16 been in charge of this before SWAC was
17 formed. Morris County thinking was not
18 always incineration. They thought of
19 alternatives and I hope you gentlemen listen
20 to the people, review the alternatives, get
21 the reports out after tonight. Secondly, I
22 served on the planning board one term. I
23 reviewed the report that was submitted
24 selecting Roxbury Township as a site. I
25 would say from my experience the report was

1 not, was very poorly done, did not reflect a
2 study of the entire County of Morris for
3 locating a resource recovery facility.
4 Obviously, you wouldn't put it on the western
5 end of Morris County where the garbage is not
6 being generated. Since the the county has
7 gone onto include other lands in the site,
8 which I see as a last minute attempt to
9 justify the original selection which was to
10 meet their own criteria, I hope when the
11 Freeholders vote, explain how we came from
12 fourteen going to number one tonight. How we
13 came to -- I don't know what the new
14 Freeholders heard between the beginning of
15 November when they took office but I think
16 the people are owed an explanation for that.

17 (AUDIENCE APPLAUDS)

18 MR. JULIAN: (Cont'g.) I don't know if
19 the gentleman before me -- Mr. Germine gave
20 one but I'm interested in your explanation.
21 Gentlemen, to sum up here, you're the elected
22 officials. We hope before you vote we hear
23 from you as to why you're making whichever
24 decision you come up with. Very simply, you
25 heard all the experts. If you put this

1 incinerator in, garbage burner, you'll lessen
2 the air quality in Morris County. It's a
3 fact. Now, do you want to do that or, number
4 two, fallout that can contaminate the water
5 supply as Mr. Moody pointed out, you'll
6 pollute the ground water that effects the
7 Delaware River Basin, hundreds of thousands
8 of people, and that's a question that you
9 should answer to yourselves before you take
10 your action. I can only -- trying to think,
11 get my last thoughts together. I sat on the
12 governing body. If you don't have all the
13 answers you owe it to the people that elected
14 you to hold off your answer, decision until
15 you have the answers. The people deserve
16 answers to their questions. In summing up
17 for Mayor Dawson, the township officials
18 expect you to answer the questions, expect
19 you to make the best decision, not just any
20 decision for Morris County. Thank you.

21 (AUDIENCE APPLAUDS)

22 MR. JULIAN: One other thing, Patric, a
23 gentleman raised an issue on water. I don't
24 think all the costs of this incinerator has
25 been explained to the people in Morris

1 County. Possible solution popped into my
2 head, is the Morris County Municipal
3 Utilities Authority may develop wells in
4 Chester, somewhere else, and bring lines up
5 to the foreign trade zone and now who will
6 pay for that? If that's the solution for the
7 need for water coming from the people that
8 are paying the water bills shouldn't they
9 know the answers to these questions before
10 you people vote and, you know, what are the
11 total costs of this incinerator? Thank you.

12 DIRECTOR HYLAND: Thank you. Anyone
13 else that wishes to be heard tonight? Mayor,
14 did you want to wrap it up? Either one or
15 both.

16 MAYOR DAWSON: I would have to concur
17 with the last couple of thoughts that have
18 been given here this evening that I don't
19 believe -- my concern is when are we going to
20 hear the responses to the questions and
21 concerns that were raised this evening? I
22 would have to say that I don't believe the
23 Freeholder Board in good conscience could
24 make a decision regarding the siting of the
25 incinerator without being responsive to the

1 questions and concerns raised here this
2 evening and if they do make that vote and
3 they do make that selection and site the
4 incinerator in Roxbury Township without
5 answering the questions and concerns raised
6 here this evening, then I have a serious
7 problem with their thought processes. Thank
8 you.

9 DIRECTOR HYLAND: Thank you. Anyone
10 else that wishes to be heard?

11 MAYOR JOHNSON: In conclusion, I would
12 say not only do we not want an incinerator in
13 Roxbury, an incinerator in Morris County, in
14 all honesty I don't think we want it in the
15 State of New Jersey. Thank you.

16 DIRECTOR HYLAND: Anyone else wish to
17 be heard? The public hearing is closed. The
18 Board shall receive additional written
19 comments May 22nd, 1989. All written
20 comments addressed to the Clerk of the Court
21 Board of Chosen Freeholders, The Courthouse,
22 Morristown, New Jersey up to May 22nd, 1989
23 shall be considered by this Board before a
24 final decision is made on the amendment to
25 the Morris County Solid Waste Management Plan

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for consideration. All in favor say, aye.

(ALL BOARD MEMBERS-AYE)

(WHEREUPON PROCEEDING CONCLUDED AT 3:40

A.M.)

1 (A Resolution recommending the inclusion
2 of the Roxbury Township site for a waste to
3 energy facility in the Morris County Solid
4 Waster Management Plan, dated April 5, 1989 is
5 marked Exhibit C-1.)

6 (A Resolution of SWAC, dated April 12,
7 1989 is marked Exhibit C-2.)

8 (Morris County Solid Waste Management Plan
9 update of May 1985 is marked Exhibit C-3.)

10 (Morris County Solid Waste Management Plan
11 Amendment, dated August 1987 is marked Exhibit
12 C-4.)

13 (Morris County Solid Waste Management
14 Plan Amendment, dated November 1987 is marked
15 Exhibit C-5.)

16 (Morris County Sold Waste Management Plan
17 amendment, dated April 1989 is marked Exhibit
18 C-6.)

19 (Morris County District Recycling Plan
20 Amendment, dated October 1988 is marked Exhibit
21 C-7.)

22 (Morris County Sold Waste Management Plan
23 Amendment, dated February 1989 is marked Exhibit
24 C-8.)

25 (Morris County Resource Recovery Facility

1 Site Suitability Evaluation Report, dated April
2 1989 is marked Exhibit C-9.)

3 (Proof of mailing, dated April 23, 1989 is
4 marked Exhibit C-10.)

5 (Proof of mailing, dated April 14, 1989 is
6 marked Exhibit C-11.)

7 (Second Proof of mailing dated April 14,
8 1989 is marked Exhibit C-12.)

9 (Proof of Publicatoin dated apri 21, 1989
10 is marked Exhibit C-13.)

11 (Whereupon at 3:50 o'clock a.m., the
12 hearing is concluded.)

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25 **New Jersey State Library**

1 Site Suitability Evaluation Report, dated April
2 1989 is marked Exhibit C-9.)

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4 marked Exhibit C-10.)

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9 (Proof of Publicatoin dated apri 21, 1989
10 is marked Exhibit C-13.)

11 (Whereupon at 3:50 o'clock a.m., the
12 hearing is concluded.)

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985X

Walter J. Perelli, C S R

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COUNTY OF MORRIS
BOARD OF CHOSEN FREEHOLDERS

Public Hearing

Roxbury Township High School
Auditorium
Succasunna, New Jersey

Monday, May 8, 1989

- - - - - x
RE: Adoption of the :
Morris County Solid Waste :
Management Plan. :
- - - - - x

C E R T I F C A T I O N

WE, ELLEN D. DiBENEDETTO and
WALTER J. PERELLI, Certified Shorthand Reporters
and Notaries Public within and for the State of
New Jersey, do hereby certify the foregoing to
be a true and accurate transcription of our
stenographic notes to the best of our ability.
Dated: June 14, 1989

Ellen D. DiBenedetto

ELLEN D. DiBENEDETTO, C.S.R.
Lic. No. X100431

Walter J. Perelli

WALTER J. PERELLI, C.S.R.
Lic. No. X100785



Reuter, Inc.

410 - 11TH AVENUE SOUTH
HOPKINS, MINNESOTA 55343-7878
Telephone 612-935-6921 FAX 933-5803

- Precision Machining
- Computer Disc-Pack Spindles
- Design and Engineering Service
- Waste Processing and Recycling Plants

- Blow Molding of Plastics
- Structural Foam Molding
- Rotational Plastic Molding
- Mechanized Refuse Collection Services

October 2, 1989

Ms. Cindy A. Lombardi
Research Assistant Central Staff
New Jersey State Legislature
Office of Legislative Services
State House Annex CN-068
Trenton, New Jersey 08625

Dear Ms. Lombardi:

Thank you for allowing our company, Reuter, Inc. this time to speak on Centralized Recycling Facilities. Reuter, Inc. owns and operates a 400/800 TPD recycling dRDF Facility in Eden Prairie, Minnesota since 1986. We are building, owning and operating a 660 TPD recycling/compost facility in Pembroke Pines, Florida which will be operational in early 1991.

Is Reuter's type of technology a viable option for this community? I say an emphatic YES. Why? There are many reasons, but I will only mention a few key points.

1. Our facility is not a new technology. It has been working for over 30 years in Europe. It is proven both in Europe and more recently, in the United States since 1986.
2. Our facility is extremely flexible. We are able to build a recycling center with options, and use all of the options according to the market demand. For example -- presently there is a paper glut in Minneapolis, Minnesota. Our recyclers have to pay \$20 per ton to get rid of the paper. With our system, we simply manufacture a pellet which is 98 1/2% paper and is burned along with coal to generate heat and electricity at Fort Howard Paper Co. and Weyerhaeuser Paper Co., in Wisconsin. They are presently paying Reuter \$18 per ton for our fuel. Why the pellets? Because they burn cleaner than coal and are lowering their sulphur emissions by over 20%. Sulphur is the number 1 cause for acid rain. Reuter, Inc. in effect is helping to clean up our atmosphere.
3. Mass burn incinerators burn everything they receive including plastics, which is oil, ferrous metal, grass clippings, food scraps, cardboard, aluminum, glass, etc. Why burn these products when we can recycle them with a system such as ours.

987X

Ms. Cindy A. Lombardi
Page 2

October 2, 1989

Metals will be sold to a scrap dealer for melt down then will become a new product, grass clippings and food scraps will become a valuable compost material, cardboard is baled, sold and will eventually become another form of cardboard, aluminum will be baled and sold to companies like Alcoa and Reynolds.

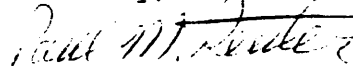
Forty percent of our waste is paper. We are able to bale it and sell it where it will become recycled paper or shingles for the housing industry, or we can pelletize the paper to burn along with coal as I mentioned earlier. When we are finished, Reuter, Inc. has recycled between 85 - 90% of the incoming waste. We have been doing this since 1986 in Minnesota and will be doing this in Florida in 1991. We would like to do this for you here, in New Jersey.

Just a couple of final points. I flew here from the International Public Works Convention which is being held in Orlando, Florida this week. There are over 12,000 public officials at this show looking at exhibits such as ours. My point here is very clear. There are many companies in this field -- not just Reuter, Inc. There are many alternatives to mass burn. My final point is that at Reuter, Inc.'s facility in Minnesota, we have a 100% participation rate for recycling. All the refuse brought into our plant from the haulers goes through our process of recycling. Those citizens who chose that hauler, which brings the refuse to our plant, are recycling between 85-90% of their garbage.

I invite each and everyone of your to come to Minneapolis and see for yourselves. We are open Monday through Friday from 7 a.m. to 5 p.m..

Thank you for your kind attention and remember - Think recycling.

Sincerely,



Paul M. Reuter
National Sales Manager

PMR: tnr

enclosure

P.S. I have enclosed additional information on our system which I would like you to include with my testimony, a film on our process, literature on our company and a generic proposal which we have submitted to Atlantic County, New Jersey.

GARBAGE INCINERATION, THE D.E.P., AND YOU

The New Jersey Department of Environmental Protection is going full steam ahead with plans to build numerous garbage incinerators throughout the state. The garbage incinerator slated for Bergen County is in fact one of the world's largest. It is a monster that will eat 3000 tons of garbage a day, and spit out approximately 1000 tons a day of ash (up to 45% of which is toxic). Each year this much ash would cover a football field piled as high as a 25-story building. It will bellow into the air the other 2000 tons. That's right, as the DEP calls it, 2000 tons of "aerial garbage" each day. You see, a fundamental law of physics is that matter can neither be created nor destroyed; we can only change its form and composition: from ordinary garbage to toxic ash and poisonous gases. Incineration "gets rid of" our garbage by making us breathe it in our air, eat it in our food chain, and drink it through the ultimate contamination of our water supplies.

In 1983 the DEP put forth a monograph on the issue of air pollution entitled, "Needed: Clean Air." This is what they have to say:

The DEP says, "Polluted air **destroys our environment**. Dirty air may harm precious natural resources. It ruins crops, kills lakes and forests, and destroys livestock, fish and other wildlife. Long term exposure may devastate entire ecosystems."

The DEP says, "Polluted air **destroys our health**. Dirty air may cause sickness and even death. Children, pregnant woman, the aged and the ill are especially at risk from air pollution. Dozens of toxic chemicals emitted into the air are known to be potentially cancer-causing."

The DEP says, "Polluted air costs money -- due to high medical bills, lost work time, **decreased property values**, etc."

The DEP says, "Identifying the major sources of pollution is the first step toward cleaning up our air. **Solid waste incinerators emit significant amounts of particles, carbon monoxide, and hydrocarbons.**"

Let's take a quick look at what you may expect, as a minimum, in the way of air emissions **passing through** the pollution control equipment on a 3000 ton per day incinerator. And let's see what the DEP has said about each item.



2.

1. Particulates: 634,000 lbs/yr
The DEP comments: "Particulates. These include solid particles (soot and dust) or liquid droplets. Small particles may carry poisons into the lungs."
2. Carbon Monoxide: 1,100,000 lbs/yr
The DEP comments: "This deadly colorless, odorless gas is...a special threat to pregnant women and people with heart disease."
3. Sulfur Dioxide: 2,000,000 lbs/yr
The DEP comments: "This poisonous gas...can contribute to coughs, colds, asthma, bronchitis, and emphysema. Mixed with other pollutants, it can be fatal to people who have heart and lung diseases."
4. Nitrogen Oxides: 5,500,000 lbs/yr
The DEP comments: "It can lower a person's resistance to pneumonia, flu, bronchitis, etc."
5. Lead: 56,400 lbs/yr
The DEP comments: "Airborne lead is a serious health risk, especially to children and the unborn. It can damage the blood, nerves, kidneys, and reproductive and other systems."

Aside from lead, thousands of pounds of other toxic heavy metals will become airborne, including mercury, chromium, cadmium and arsenic. In their monograph, the DEP does not even mention dioxin. As stated by the US Environmental Protection Agency, dioxin is "the most toxic chemical known to mankind." The US Food and Drug Administration has stated, "Dioxin is 100,000 to 1,000,000 times more potent than thalidomide in causing birth defects in laboratory animals. Dioxin causes miscarriages, birth defects, cancer, and death in lab animals at the lowest levels detected." Dioxin is the toxic contaminant in Agent Orange. A 3,000 ton per day incinerator will spew into the air up to 6 to 18 pounds of Dioxin a year. Keep in mind that if you feed a healthy guinea pig one billionth of his own weight in dioxin, he will roll over and die. If you feed a healthy carp (a very tough fish) 30 parts dioxin in a trillion, you will kill him. There are a trillion parts per trillion in one gram and 454 grams in one pound. A single shovelful of dioxin would render the whole of Lake Ontario contaminated and dangerous to human health.

3.

In the face of other existing technologies, such as recycling and composting (already in use in Sussex County, for example) that cause none of these undesirable side effects, it would appear to be absolutely insane to use incineration as the chosen method of handling our garbage problem --- especially when it is **incompatible with recycling**. Then why, you may ask, is the DEP dragging us in this lethal direction? Perhaps it has something to do with the fact that the former DEP commissioner and his cohorts have taken high paying jobs in the incinerator industry. Pawning our lives and health, and those of our children and their children, so they can make their big bucks. Utterly outrageous.

The American Lung Association (The Christmas Seal people) "recommends that solid waste reduction, recycling, and the use of more environmentally benign disposal technologies such as composting be given priority over incineration as solutions to our nation's solid waste disposal problem. Resource recovery incineration plants are not an inherently safe solution to our nation's solid waste problem."

The US Environmental Protection Agency has emphasized, "municipal waste combustor emissions may reasonably be anticipated to contribute to the endangerment of public health and welfare."

In the words of the DEP: "Air pollution is not only a nuisance -- **it's a killer**. Protect your right to breathe clean air. Contact your representatives. Tell them you want government to improve and protect the quality of our air."

Incineration is insane-eration
Stop It.
Now.

Frank D. Livelli, Jr., M.D., F.A.C.C.
Associate Clinical Professor of Medicine
Columbia University

Bergen County Citizens Against Incineration

1024x

September 26, 1989

TESTIMONY TO THE ASSEMBLY COUNTY AND REGIONAL AUTHORITIES COMMITTEE

RE: ASSEMBLY BILL A-4105

SUBMITTED BY: Joseph Cardoni
Concerned Citizens of Morris County
P.O. Box 422
Flanders, N.J. 07836

I urge every N.J. legislator to support Assembly Bill #A-4105 calling for an 18 month moratorium on construction of Mass Burn incinerators. This period of time will allow for a study of the cumulative effect to health and the environment brought on by as many 18 burners. As important as this study will be, the 18 month period will afford us time to reevaluate the present solid waste philosophy which has incineration as its centerpiece.

I was encouraged by a Newark Star Ledger article this past Sunday which shows N.J. ranking 1st in the Nation in recycling. Greater efforts must be made to encourage non-burn technologies to vie for portions of the states waste stream. Three towns in South Jersey have achieved recycling totals of 50%. The town of Mt. Olive, where I live, has shown a decrease in solid waste tonnage to our Transfer Station from July 88' to July 89'. At the same time experiencing an increase in population. Mt. Olive officials tell us we are achieving recycling totals of 40% of our waste stream. Recycling can work if given a chance and a push.

In terms of a comprehensive approach to county disposal options, I submit a review of 2 proposals before Morris County's Chosen Board of Freeholders. A 1340 TPD (tons per day) Mass Burn Incinerator and a material recovery process using an Italian process known as the Sorain-Ceccini Process.

I will present a comparison of the two methods with regard to cost, tonnage processed and other considerations.

COST

INCINERATION: \$148 million initial capital investment at todays cost. Add to that an 8% annual cost increase, an \$8 million annual operating cost, add the cost of an ash landfill + \$50 million, plus the cost to transport ash to landfill, and, unknown repairs and maintenance costs for site improvements. (ie: roads, retention ponds etc.)

We are looking at a project with a capital cost approaching \$300 million to the county taxpayers.

SORAIN-CECCINI: \$80 million for a facility to process the equivalent flow of waste.

TIPPING FEE

INCINERATION: \$100-120 per ton + adjustments.

SORAIN-CECCINI: \$70 per ton + annual increase on Consumer Price Index.

1025x

LAND REQUIRED

INCINERATION: 115 acres

SORAIN-CECCINI: 8 acres

WATER CONSUMPTION

INCINERATION: 144,000 GPD (gallons per day)

SORAIN-CECCINI: 22,000 GPD

The Sorain-Ceccini process will reduce Morris County solid waste 92% by volume through an integration of 3 stages of separation and classification.

STAGE 1

MATERIAL RECOVERY: Separation and recovery of plastics, metals, glass and cardboard. Each item is isolated and converted to a raw material form which can be sold to product manufacturer.

STAGE 2

COMPOSTING: Organic materials and food waste are converted to topsoil or humus in an in-house accelerated process (28 days).

STAGE 3

REFUSE DERIVED FUEL: Paper and textiles are separated, compressed and shredded into fuel flakes. This fuel is dry and is easily stored and transported. It could be purchased by cement kilns or any boiler burning pulverized coal or oil and burned in a retrofitted boiler. The fractional remainder of waste that is not processed or bypassed is then landfilled.

The company making the proposal has offered to design, permit and construct the facility at no cost to the county and guarantee the handling of waste from drop-off to landfill. The only cost incurred would be the \$70 per ton tipping fee.

The system is adaptable to changes in the waste flow with respect to volume and content. Unlike incineration where it is mandatory to maintain high levels of garbage to be burned, the Sorain-Ceccini process will allow municipalities to continue to pursue recycling efforts. This affords them reduced tipping fees through reduction in tonnage, as well as increased revenues from the sale of recyclables.

This process is but one of many that are emerging as an alternative to incineration. For 200 years this country has been blessed with an abundance of natural resources and land to bury them in after one use. The Laws of Supply and Demand are now making it profitable for industry to develop new technologies for recycling resources and reducing dependence on landfills.

Incineration will shut the door on recycling alternatives by committing our resources from landfills to a fire.

TESTIMONY REGARDING ASSEMBLY BILL 4105, Moritorium on the Construction of Garbage Incinerators, September 26, 1989.

My name is Al Franklin. I live at 330 Van Houten Avenue in the City of Passaic and am speaking to this issue as a member on the Board of Directors of the United Passaic Organization (UPO).

From the very beginning the UPO has been against the construction of these so called Resource Recovery Facilities, which herein shall be referred to as "incinerators". The reasons for not having it in Passaic were valid to all except those who really mattered, namely the Passaic County Freeholders, the Dept. of Environmental Protection, the Department of Transportation, the Courts, the Governor, and the Mayor of Passaic. The overriding reason for having the incinerator here was political expediency, and nothing more. Since it was their opinion that the least concerned, the least informed, and the least say in the matter could be expected from the residents of Passaic and its neighbors.

Besides, political expediency, the money making potential for the city of Passaic was also given as a reason, which we know now is invalid as we have experienced in Warren County. Also, according to a study, the main source of combustibles is paper and paper products, which we hope to eliminate by recycling. This means that plastics with its toxic gasses and solids will be more concentrated and the desired furnace temperature of between 1700 degrees and 1800 degree for maximum efficiency will not be reached. Result, more toxic gas to eliminate than expected and more concentrated toxic material in the ash, making it hazardous, and its disposal much more expensive (Warren County) than anticipated.

Obviously, when the Governor and the Courts "decreed" that there must be an incinerator for each county and the Board of Freeholders for each county will decide the best place based on the Dept of Environmental of Protection's recommendations, the incinerator was thought to be the only solution to a waste problem that, like the Savings Banks, we knew was coming over 10 years ago. Without taking into consideration, the population density, schools, churches, hospitals, location, traffic, and accessibility, Passaic was chosen, though fourth on the list of possibilities as recommended by the DEP. When in a suit in the court it was borne out there was no plan for accessing the Incinerator a heretofore unpublicised agreement of intent with the DOT and moneys from the State (\$10 million) to access it temporarily came to be. That should have been enough to show illegality in chosing the site in Passaic.

There was not much forethought in the Court's decree about incinerators. This bill gives us all a chance to rethink the court's decision about the incinerators: their location, how to make them more efficient and economical, if and where needed and how recycling can be made more effective. This thinking should have taken place a long time before this decision was made so that four incinerators would not have been proposed within 10 miles of each other, and as found in Passaic, no consideration of proximity to a hospital, several churches, two

schools, two businesses(eliminated),residential property(10 houses eliminated), and a dense population with limited housing. All of these factors should recognized before the location or building of the incinerator be even considered.

The importance of having a solution that the State can live by, and not create more economic and social problems, makes this bill most necessary to obtain some thought about the best way to dispose of the State's waste.

Draft #3

**ASSEMBLYMAN ROMA'S OPENING REMARKS
BEFORE THE COUNTY GOVERNMENT AND REGIONAL AUTHORITIES COMMITTEE**

September 26, 1989

New Jersey is at a crossroads in deciding which direction it will choose to resolve its garbage situation. For the past few years, our Department of Environmental Protection has been encouraging counties to plan, construct and operate mass burn incinerators as the preferred method of reducing the amount of trash in the waste stream, which ultimately must find its way into our ever-diminishing landfill space.

As this policy of mass burn was promoted by the DEP, we may have shortchanged other technologies in our rush to resolve our garbage crisis by embracing incineration at any cost. Certainly it is apparent to all that the DEP, once it decided that mass burning of garbage was its preferred method of trash management, devoted almost all of its resources into encouraging counties to follow that pathway. But is this route the best road for New Jersey to follow?

Assemblyman Roma's comments/1

As the most urbanized state in the nation, New Jersey is often on the cutting edge of historically significant social or technological changes. New Jersey has a long list of "firsts." Fortunately most of those innovative "firsts" have given residents a better quality of life. We must assure that we continue in a positive direction.

Because the construction of a mass burn incinerator is so costly we should carefully review if the taxpayers are getting their money's worth out of such a long-term proposal.

Due to the public's willingness to actively participate in the state wide mandatory recycling law, we should review its successes as well as the market's ability to reuse our recycled items. Some suggest that recycling will have limited appeal, as the market is not in place to take the results of our efforts, and so other options, such as mass burn offer the only hope for reducing the trash stream.

Others suggest that recycling will work better than anticipated as new markets are formed and we will reduce estimated tonnage of garbage which would be used to feed the incinerators. Evidence of the garbage shortfall now exists with our one county incinerator now on-line in Warren County.

Assemblyman Roma's comments/2

If so, do we downsize our incinerator plans or will future growth during the construction phase make up the shortfalls caused by recycling?

Still others claim that stack emissions, even with the most advanced scrubbers, will still emit carcinogens into the environment. What can we expect to occur with our air quality if 20 of these incinerators are ultimately built? We are not in compliance with federal clean air standards today. Can we burn thousands of tons of garbage each day a few years from now and still improve our clean air standards to meet tough federal levels?

Others suggest we consider regionalization of mass burners. Instead of every county having its own incinerator, counties should be encouraged to form regional partnerships. How would this work? Which county would host the burner and which county would pay to have its trash burned at an out-of-county site? And who decides that? Should the people have a voice in such a decision?

Other options reviewed but initially rejected by the DEP, including extensive recycling and composting, may require a second look.

Assemblyman Roma's comments/3

Plastics recycling, unheard of during the initial DEP decision making process a few years ago, is making new progress and gaining increased use even as we meet.

As with any option to our monumental problem of disposing of the 14 pounds a day of trash each one of us in New Jersey generates, source separation is key.

Do other options to mass burning of garbage offer a quicker and surer method of separating the good, recyclable garbage from the construction debris, old refrigerators and other difficult-to-get rid of garbage and still leave enough burnable trash to efficiently operate a mass burn incinerator?

Can New Jersey afford at this time to delay moving ahead with the DEP's plan for mass burning of garbage and study alternatives for the 1990s not available during the 1980s? Or can't we afford not to, when we consider that our decision today will affect the lives of our children and their children.

Assemblyman Roma's comments/4

Garbage is big business in New Jersey and unfortunately is one of our biggest exports. We must resolve this problem ourselves. It must be a wise decision; it must be a far reaching decision. It will be a difficult decision. But decide it we must, and that is the purpose of this meeting today.

#####



I

Testimony to the Assembly Committee
on County Government and Regional Authorities

September 26, 1989

My name is Rose Slovis. I serve on the Board of Directors of the United Passaic Organization representing the National Council of Jewish Women and Temple Emanuel of Passaic. I am testifying on behalf of United Passaic tonight to urge this committee to vote for Assembly Bill 4105 to be released out of committee.

Our state desperately needs a moratorium and a careful study of the risks associated with incineration as compared with newer garbage disposal technologies. Lets look at some of the vital concerns a study would address:

CUMULATIVE EFFECTS: We have all seen the map of the 19 proposed incinerators in New Jersey— Add to that the dozen or more planned in New York. Yet Environmental Impact Statements only look at particular sites. It is time that we look carefully at the whole picture.

CANCER: New Jersey already ranks fourth in the nation for deaths due to cancer. This is frightening. What effect will 19 incinerators have on the health of our families? We need to investigate! In Warren County, New Jersey's only operating incinerator, the plant is estimated to emit 1,363 tons per year of nitrogen oxide, a pollutant that contributes to ozone depletion and acid rain. This at a time when New Jersey is

already in violation of federal ozone standards.

Further, in Warren County, high levels of cadmium and lead were discovered in 54% of the ash residue, forcing the county to pay four times higher than anticipated landfill costs since the ash must be sold to toxic waste landfills.

RECYCLING: New Jersey has mandated 25% recycling. But incinerators often discourage recycling - requiring more garbage to be burnt to make them economically viable. Again, we have an example to study in our own state in Warren County.

TAXES: The incinerators which have been built, and even those in the planning stages are costing drastically more than projected. We were told in Passaic originally that the incinerator would save us taxes. Then we were told that even with the landfilling costs of trucking our garbage to Pennsylvania, we will perhaps break even with an incinerator. Now, the federal Environmental Protection Agency has pulled the Air Quality Permit on the Passaic incinerator because the plans will not enable it to meet federal clean air standards. And now, the Passaic Incinerator is anticipated to cost an additional 7 million dollars on top of a current 180 million dollar price tag.

Fewer than 70 mass burn incinerators are operating nationwide. A partial list issued by the Institute for Self Reliance documents 16 cases where government officials reversed earlier decisions to construct incinerators. This is no wonder when incinerators nationwide have experienced mechanical failures that have caused 720 million dollars worth of plants to be

closed.

ALTERNATIVES TO INCINERATION: It is clear that we must look at the alternatives to incineration now being utilized in countries and states that have built incinerators and have seen the consequences. For example, "Serrain Cecchini" technology is now being implemented throughout Europe as well as in our own state of Minnesota after that states review of numerous options. I understand that this technology recycles without source separation.

Committee members, you have heard and will hear countless compelling arguments today as to why a moratorium and study is urgent. You have heard and will hear from incinerator companies whose primary interest is their pocket books, pressuring you to forego this legislation. I have tried not to focus my remarks on the particulars of the Passaic incinerator where I live. However, in closing, I would ask that you consider this. In our city the proposed incinerator is right accross the street from an elementary school where 800 children attend each year. It is right next to a major hospital. All we are asking you to do tonight is to stand with us and look squarely at what our future holds in store for these children, these patients, and for all of us, before its too late. Vote for Assembly Bill 4105 to be released out of committee and you will be insuring a better future for every citizen in our state. Thank you.

1036X

Statement for Public Hearing

September 26, 1989

As a member of the Netcong Boro Council, the Environmental Commission and a volunteer Recycling Coordinator, I am very much in favor of a moratorium on Incineration.

I'd like to point out the fact that there is presently only one mandated solid waste plan in the state of New Jersey. The N.J. recycling law was passed in April 1987. For some strange reason, despite an enormous solid waste disposal problem, the full implementation of the law was delayed until April 1989 (2 Years Later). 1989 is now here, yet many communities and commercial establishments have hardly begun to put anything but minimal efforts into recycling.

Incinerator plans call for incineration of non-recyclable trash, but what they really mean is incineration of non-recycled trash. It makes little sense to consider very costly, environmentally risky incineration solutions before N.J. has given recycling a fair chance.

We need to find viable methods and markets for recycles -- especially plastics! We need to develop methods to collect and remove household hazardous wastes from the waste stream (i.e. batteries, aerosols, cleaners etc.).

At present, the nation's waste stream is estimated to consist of approximately: 35.5% paper; 8.5% glass; 9% metals; 7% plastics; 20% yard waste; 9% food waste; 9% rubber, leather, textiles and wood. The total amount of these recyclable materials is 98%, which leaves only 2% inorganic, non-recyclable materials in the waste stream.

Real efforts must be made to separate, recycle and compost much more -- to reuse rather than burn or bury natural resources. Only after such efforts can we make a realistic assessment of how to dispose of the balance. Incineration only reduces 75% by weight (note: the 90% by volume includes the space inside plastics etc.). If we recycled 70-or 80% it would be much more cost effective to landfill the remaining 20-or 30%. Incineration should be only a last resort. Not a first choice! Very few incinerators, or possibly none at all, should be built. If a small percent of the money and resources that have been pledged to incineration were diverted to improving recycling methods and markets, the need to incinerate could be removed.

1037X

New Jersey State Library

The state has yet to put teeth into the Recycling Law. Haulers and Transfer Stations are still not being fined for accepting trash loads full of recycles! People need to make personal commitments to recycle as much as possible. Real leadership is needed!

It is very hard to believe that a town like Morristown, with a population of 17,000, totaled only 571 tons of residential recycles in 1988. This compared to Netcong, a town of only 3500 people with very little money and resources, which totaled 455 tons of residential recycles. Likewise, Morristown, with all its commercial units, totaled only 474 tons of commercial recycles in 1988 as compared to Netcong's 300 tons of commercial recycles.

Such figures clearly show that Recycling, which is mandated by law, needs to be vastly improved before proceeding to even consider very costly incinerators, which will have a detrimental effect on the environment.

*Respectfully,
Cecilia [unclear]*

1755 [unclear]

1038X

NEW JERSEY ACT



P.O. Box 6438, Raritan Plaza II
Edison, New Jersey 08818
201-225-1180
FAX 201-225-4694

New Jersey for A Clean Tomorrow

NJ ACT SUPPORTERS

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Economic Development
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Engineers
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Society of
Professional Engineers
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State Chamber of
Commerce
Southern New Jersey
Development Council
Utility and Transportation
Contractors Association
Waste Management
Association of New Jersey

**Statement of
Philip Beachem
Secretary
New Jersey for A Clean Tomorrow
(New Jersey ACT)**

**on
Assembly Bill 4105**

**Presented to
Assembly County Government
and
Regional Authorities Committee**

**September 26, 1989
Hackensack, New Jersey**

1039X

Mr. Chairman, Members of the Committee, Assemblymen Rocco and Pascrell: My name is Philip Beachem and I serve as Secretary of New Jersey for A Clean Tomorrow.

New Jersey ACT is a non-profit educational organization comprised of leaders from business, industry, academia, professional, civic, labor and recycling organizations. New Jersey ACT was formed over one-year ago to educate New Jersey residents and elected officials about the solid waste problem and its solution--a comprehensive, four-pronged strategy for managing the 11 million tons of solid waste produced each year by the people and businesses of this state. This strategy includes: source reduction; intensive recycling; resource recovery incineration; and, the use of modern, lined landfills.

Let me get right to the point of this testimony.

A-4105's one-year moratorium on permitting resource recovery facilities is inappropriate and fails to recognize the fact that New Jersey faces a solid waste disposal crisis today. We do not have the luxury of putting everything "on hold" for a year.

Resource recovery incineration is a tested and proven technology which has evolved over the past several decades. The technology of incineration, as well as those of emission control and ash management, continue to evolve and provide greater protection to public health and the environment. Resource recovery incineration, when properly implemented as one strategic component of a comprehensive solid waste management program, presents no unreasonable risk to the people of New Jersey.

The people of New Jersey have valid questions regarding the technologies of comprehensive solid waste management, including resource recovery incineration. New Jersey ACT wants to work with state and county officials, scientists and physicians to provide answers to these questions.

The risk that we in New Jersey face is in doing nothing. Inaction will result in severe environmental and economic damage to each of New Jersey's solid waste districts--and all of New Jersey.

A comprehensive solid waste management strategy will help to reduce, reuse and permanently dispose of the solid waste generated in New Jersey.

This strategy will help New Jersey to be self-sufficient in solid waste disposal by the target date of 1992. Today, New Jersey doesn't have the capability of disposing of all of this waste. Consequently, more than 15,000 tons of garbage on average are shipped out-of-state for disposal every day to states like Ohio and Pennsylvania. This equals more than six million tons each year, or about 55% of all the solid waste generated in New Jersey.

Both of these states are aggressively moving to stop New Jersey's waste from entering their borders. I will submit a series of news articles outlining actions taken by these states against New Jersey.

A one-year moratorium would do nothing to alleviate New Jersey's crisis, it would only serve to escalate the crisis. It would serve to penalize those counties that have worked so diligently in recent years and months to provide environmentally- and economically-safe and sound solid waste disposal for their residents that will stretch well into the next century.

New Jersey ACT will gladly work with the next administration in Trenton, and all county officials, to provide technical and scientific facts on all aspects of comprehensive solid waste management in order to keep New Jersey on a course for self-sufficiency by 1992.

But, we can not support legislation which would detrimentally effect these efforts.

As part of its efforts to provide factual information on these complex issues, New Jersey ACT has established a Technical Advisory Panel under the direction of Dr. Richard Magee, Executive Director of the Hazardous Substance Management Research Center at the New Jersey Institute of Technology. This panel of scientists and a physician are developing technical papers on the issues of solid waste management.

I will enter with my testimony the first of this series of Environmental Issues Papers. As the papers on dioxin, ash management and health risk assessments are completed over the next few weeks, they will be forwarded to the committee.

New Jersey ACT strongly believes that resource recovery facilities are necessary today. And, as indicated by thousands of hours of operating experience throughout the world, and right here in New Jersey; and, by research conducted by scientists at the New Jersey Institute of Technology, Rutgers University and many other institutions, they are safe.

A moratorium that would, in effect, bring viable, responsible solutions to our solid waste crisis to a complete stop, is ill-timed and ill-advised.

Mr. Chairman and members of this committee, any delay in moving forward with one of the key components of a comprehensive solid waste management strategy means that our state will be that much further away from solving its most pressing environmental problem--the need to provide for in-state disposal of the more than 11,000,000 tons of garbage generated annually by its residents and businesses.

Thank you.

#

Statement to -

County Government and Regional Authorities Committee

Hearings on Assembly Bill A-4105

September 26, 1989

County Court House

Bergen County

Rhoda Schermer

225 Highland Avenue

Ridgewood, New Jersey

Spokesperson for - Beth Israel Hospital

Passaic, New Jersey

1064X

I AM REPRESENTING MYSELF AS A RESIDENT OF RIDGEWOOD (BERGEN COUNTY) CONCERNED ABOUT AIR QUALITY, HEALTH AND SAFETY FACTORS EFFECTING MYSELF, MY NEIGHBORS, AND RESIDENTS OF NEW JERSEY.

I AM ALSO SPEAKING AS A MEMBER OF THE RIDGEWOOD PLANNING BOARD WHERE I AM INCREASINGLY EXPOSED TO CONCERNS BY TAXPAYERS FOR POORLY PLANNED PROJECTS THAT END UP EITHER WASTING SCARCE DOLLARS OR FOR PROJECTS THAT END UP HAVING TO BE BAILED OUT BY INCREASED TAXES.

I AM ALSO AN ADMINISTRATOR AT BETH ISRAEL HOSPITAL IN PASSAIC NEXT TO WHICH IS PROPOSED ONE OF THESE MASS BURN FURNACES.

MY PURPOSE IN BEING HERE IS TO SEEK PASSAGE OF A-4105. THE TAXPAYERS OF NEW JERSEY REQUIRE A MORATORIUM ON IMPLEMENTATION OF INCINERATORS. THERE IS TOO MUCH CONFUSION, CONTRADICTION, LACK OF CREDIBILITY AND CONFIDENCE ON THE ISSUE OF INCINERATORS FOR SUCH PROJECTS TO PROCEED WITHOUT A COMPREHENSIVE ASSESSMENT.

MOST OF US REALIZE THAT NJ HAS A GARBAGE PROBLEM AND WE UNDERSTAND EACH COUNTY WAS DELEGATED RESPONSIBILITY TO SOLVE THE PROBLEM. WE ALSO KNOW THAT THIS APPROACH HAS PRODUCED AN UNCOORDINATED AND EXCESSIVE RESPONSE AND THAT TOO MANY FURNACES ARE NOW IN THE PLANNING/IMPLEMENTATION STAGE.

THE CONFUSION AND LACK OF CONFIDENCE RESTS ON THE FOLLOWING ISSUES:

- 1) HOW MANY FURNACES DOES THE STATE OF NJ ACTUALLY REQUIRE TO ADDRESS ITS GARBAGE PROBLEM PRACTICALLY, COST EFFECTIVELY WITHOUT ADDITIONAL TAX BURDENS?
- 2) ONCE THAT NUMBER IS DETERMINED, WHERE ARE THE MOST RATIONAL, ACCESSIBLE, APPROPRIATE LOCATIONS FOR THESE FURNACES?
- 3) WHAT IMPACT WILL RECYCLING AND NEW RECYCLING TECHNOLOGY HAVE ON THE VOLUME OF GARBAGE?
- 4) SHOULD THERE BE A STAGED PLAN FOR THE CONSTRUCTION OF INCINERATORS RELATED TO ACTUAL NEED FOR ADDITIONAL INCINERATORS?

1065X

- 5) WILL THERE BE SUFFICIENT DOLLARS FOR EFFECTIVE MONITORING OF
INCINERATORS AND WHO WILL BE RESPONSIBLE?
- 6) ARE THERE ALTERNATIVES TO INCINERATORS THAT ARE MORE COMPATIBLE
WITH OUR CONCERNS FOR -

AIR QUALITY

HEALTH ISSUES

SAFETY ISSUES

COST ISSUES

THESE ARE SOME KEY ISSUES FOR WHICH THERE HAVE TO BE CREDIBLE ANSWERS. ONE THING
NONE OF US WANT ARE POORLY CONCEIVED AND PLANNED PROJECTS THAT WILL HAUNT US IN
THE YEARS TO COME.

Public Statement for 9/26/89 Meeting

The members of the Netcong Environmental Commission have many reservations on the proposed incinerator to be built in Morris County.

Our first concern pertains to our water system. The proposed incinerator is located on an aquifer basin less than one-half of a mile away from one of Netcong's well fields. This raises two important questions: one of quantity and one of quality. This particular incinerator is designed to consume 50,000 gallons of water per day. This water will come from surface water near our wells. How extensive will this affect the quantity of water in our wells? With toxic emissions and hazardous ash landfills, what effect will be brought upon the quality of Netcong's water supply? We, as a town, have an obligation to prevent any detrimental effects on our water system.

Our second concern pertains to the health of our residents. Incinerators have been known to pollute up to a distance of 25 miles and are proven by the EPA to pose significant health hazards. For example, an incinerator in Philadelphia, one-half the size of the proposed Morris County incinerator, was forced to close in July of 1988 because of the high cancer rate found in the area, the rate of children with brain tumors, and dioxins found in the soil. New Jersey is already ranked as having the second poorest air quality in the nation. The incinerator will worsen the air quality. Smoke stack emissions expell Agent Orange, lead, and arsenic, to name a few.

Our third major concern deals with cost. One major cost is to the environment. It is almost always more costly to correct environmental problems than it is to prevent them. One major issue has to be the cost to the taxpayer. The project is predicted to cost \$150 million and these costs usually overrun, at times by as much as 60 percent -- as was the case in Warren County. These costs also don't include constructing the 80 acre land fill that stores the hazardous ash. Also, the burner cannot operate efficiently with fractional loads. The Warren County incinerator had to be fed wood chips and newspapers to make up for the shortfall, costing the county almost \$2 million. There are also the costs of testing, pollution control equipment and costs for litigations and fines that are practically a certainty.

The facts seem to lead us away from incineration altogether. Sixty of the 150 incineration projects in the country have been scrapped at some stage in the last two years. In 1988 alone the ratio was more than 50 percent because the cost of burning was too high. A major investment firm warned investors against purchasing stock in companies that specialize in "resource recovery". The county should investigate other viable alternatives to incineration before diving into a project with so many flaws.

A pilot project to monitor Warren County's incinerator and determine if and how toxins from garbage burning enter the environment and the food chain has been authorized for funding and will start this Fall. The 18 month, \$200,000 study sponsored by the state DEP will look for pollutants such as dioxin and heavy metals in the soil, vegetation and cow's milk around the state's first resource recovery incinerator.

We respectfully request a similar study be conducted on the potential effects an incinerator at the proposed site would have on the environment especially the quality of the borough's water supply.

Sincerely,

Ed Sekula

Netcong Environmental Commission
Ed Sekula, Chairman

1067X

TESTIMONY OF ATTORNEY EMERY TOTH IN SUPPORT OF A-4105
SEPTEMBER 26, 1989

My name is Emery Toth, and I am a Perth Amboy attorney who is opposed to the construction of incinerators for solid waste, sludge and hazardous waste disposal.

I want to applaud the sponsors of A-4105 for slowing down the rush by Department of Environmental Protection (DEP) officials toward making New Jersey dependent on incineration. The health and financial considerations are so great that there must be a moratorium on construction. The DEP must conduct the necessary studies to determine the short and long-term health-related consequences of this technology on our environment. It is my hope that this bill will receive bipartisan support today and be reported out for Assembly action.

This bill comes at a critical moment. In my county, Middlesex County, the freeholders have slated the municipality of Sayreville for a solid waste incinerator. This incinerator would send the air emissions from its stacks to my city, Perth Amboy. I consulted an American Lung Association of New Jersey publication entitled, "Air Pollution in New Jersey: Problems, Programs and Progress" for background on incinerator-related health effects. According to this text, various pollutants are released from incinerators, with dioxins, PCBs, and lead among the most carcinogenic emissions.

A-4105 instructs DEP to study the overall effects of solid waste incineration facilities, for example, on polluting our air, our water quality, our water supply and altering our land use policies. Hopefully, this study will also yield important health information regarding the effects on humans. The New Jersey Lung Association publication noted that very little studies have been conducted which measure incineration's impact on humans. **I don't think the residents of New Jersey should be the guinea pigs. We owe it to the public to have the facts known before the final decisions are made on the viability on incineration. Let's not turn today's toxic incinerators into the nuclear power plants of the future.** The public deserves a better investment of their taxpayer dollars. Therefore, while the one year moratorium on permitting solid waste incinerators is in effect, I hope the alternative technologies of composting and recycling will be fully explored.

280 High Street
Perth Amboy, NJ 08861

(201) 442-1777



So, there is double protection for the ash disposal problem. If we dispose of the ash by itself, we will never get the type of acidity in the leachate which will pull the metals out. And, if for some reason we are wrong in this evaluation, we will have a leachate collection system built into the double-lined landfills required by the state which will collect and treat the leachate so metals do not get into groundwater.

In conclusion, let me state that resource recovery is a valuable technology which provides efficient waste disposal across the United States and throughout the world. As a scientist, I recognize that there are areas of concern with the technology among the general public, and I have studied these issues in detail. I am convinced that, when properly implemented and controlled, waste-to-energy resource recovery incineration facilities are an effective and efficient component in a total program of waste management and disposal and pose minimal risk to public health and the environment.

Richard Magee, Ph.D., is the Executive Director of the Hazardous Substance Management Research Center at the New Jersey Institute of Technology. Dr. Magee serves as Director of the Northeast Hazardous Substance Research Center, one of five national research centers established by the United States Environmental Protection Agency. He is also a Professor in the Departments of Mechanical Engineering and Chemical Engineering, Chemistry and Environmental Science at the New Jersey Institute of Technology.

New Jersey for A Clean Tomorrow (ACT) is a not-for-profit educational organization. New Jersey ACT was formed to inform and educate residents and elected officials of New Jersey about the solid waste disposal crisis and its solution. New Jersey ACT supports a comprehensive solid waste management strategy, which includes:

- source reduction;
- recycling;
- resource recovery incineration; and,
- use of modern, lined landfills.

New Jersey ACT hopes to provide a thorough understanding of the needs, benefits and technologies associated with comprehensive solid waste management. As part of New Jersey ACT's efforts, an independent Technical Advisory Panel (TAP) consisting of research scientists and physicians has been established under the direction of Richard Magee, Ph.D., Executive Director of the Hazardous Substance Management Research Center at the New Jersey Institute of Technology.

For additional information on New Jersey ACT, the Technical Advisory Panel, or issues including ash management, air emissions and risk assessment, contact:

Erica Schiffman, New Jersey ACT Project Manager, at (201) 225-1180.



Richard Magee, Ph.D., New Jersey Institute of Technology

Therefore, the critical way that we control dioxin emissions in resource recovery plants is through good particulate removal. The key, in my mind, to any successful resource recovery plant is good particulate removal. The standard air emission control system that most people are looking at right now includes dry scrubbers with bag house filters, something that almost looks like your vacuum cleaner bag. Results have shown that you can remove greater than 99% of all dioxins produced during incineration and subsequent heat recovery.

Next, heavy metals. Heavy metals are elements and cannot be destroyed in the incinerator. Many of these metals vaporize and then condense on fly ash. Therefore, it is important that a facility have good particulate removal technology. Again, you look at all the data and it indicates you can remove, with the exception of mercury, better than 99% of all the metals that go up the stack. Mercury can be removed at about 97% efficiency. Heavy metal emissions can also be controlled by effective particulate removal.

You may ask, what does it mean to me? What are the health risks from the remaining emissions?

Let's discuss health risk assessments. A health risk assessment calculates the "risk" associated with the operation of a resource recovery facility. The first step in any assessment is to determine where the highest ground level concentration of emissions is from the plant. Then one defines the most exposed individual, the "MEI," as one who lives at that spot. We then assume that the most exposed individual stands there for 70 years and doesn't move.

Scientists go to great lengths to do the best job they can, to make the most conservative assumptions, and go to extremes to protect public health. They calculate what you would inhale, what you would ingest if you were eating food grown on that spot. They add all this data together and come up with "the risk" for the most exposed individual.

Typically, health risk assessments for resource recovery incineration facilities run somewhere between one in a million to ten in a million additional cancer deaths in a 70-year lifetime—if you were to live at the location of the MEI, day and night, for 70 years.

The American Cancer Society states that our chances are 1 in 4 to 1 in 5 of getting cancer over a 70-year lifetime. That would equate to 200,000 to 250,000 cases of cancer in every million people. The operation of a resource recovery plant might cause an additional 10 incidents of cancer under the most conservative estimates. One would expect that the actual number would be much less. Supporters of resource recovery incineration think that is an acceptable risk. Someone else might argue that is not an acceptable risk. This becomes a judgment call.

The third issue that comes up about resource recovery plants concerns the incinerator ash. If you've been reading about the operation in Warren County, this is the issue in the headlines. There are two types of ash that are the result of the incineration process. One is called the bottom ash—the ash in the bottom of the incinerator which doesn't get vaporized and caught in the air pollution control equipment. The other type is the fly ash—that which we take out of our emissions collection system. Generally it's the fly ash that poses a problem, but let's just put it all together for the purpose of this discussion.

In terms of safety, the State of New Jersey requires double-lined landfills for safety. And, in the future it may be required to monofill ash—landfill ash by itself. There are a number of reasons for this which revolve around the possibility of heavy metals leaching into water supplies. In simple terms, research indicates that the metals will not leach from the ash from normal rainfall because they cling tightly to the ash and require an acidic "wash" to be released. Since there will be no organic waste disposed of with the ash, and it is the presence of organic waste which influences acidity, this is highly unlikely. Personally, I think it's an overkill (monofilling ash), but when you discuss the safety of the environment there's nothing wrong with overkill.

Generally, I'm not a very popular person when I talk about resource recovery incineration. This is due to the fact that solid waste disposal is an extremely controversial subject. Of this there is no doubt, especially across New Jersey.

I'd like to make a point for your consideration. That point is the following: Look at any major industrialized nation in the world, any major industrialized region which doesn't landfill solid waste. They can not solve their solid waste disposal problem using only one or two disposal technologies.

I ask you to consider this because you will hear people say that we can recycle our way out of the solid waste crisis. I honestly don't believe that. I look around the world and can't find a basis for that claim. So, therefore, I come with at least one bias, resource recovery incineration must play some portion in solving the solid waste management problem. The challenge to any county, and to the State of New Jersey, is what part will incineration play in providing environmentally sound solid waste management.

Nationally we're landfilling 85% of our solid waste—85%. Why? We're a land-rich nation. Presently, only 10% of our waste is being recycled, and approximately 5% is being incinerated. Countries like Sweden incinerate 70% of their waste. Japan, the model country in the world for recycling, achieves 48% recycling, but they end up incinerating 70% of what remains.

Now, what are the "good" things about resource recovery? First, we produce energy. Think about this, because the energy that is produced would have to come from some other source. Generally, it's the energy generated by fossil fuel plants that can be replaced—not the nuclear plants, because economics dictate that nuclear plants run at full-load. So you're replacing energy that would have come from another combustion source. I think that's a definite plus. The big plus however is we really don't burn garbage to produce energy, we do it because we end up with only 10% of the volume we started with.

Look at a normal waste stream. About 25% of it is non-combustible. We don't even try to burn things like refrigerators. So, the big attractiveness for burning garbage is that we have less mass, less volume to dispose of. With available landfill space limited, reducing the volume of the waste extends the life of the landfill.

Now, to digress for a moment, we have research going on, looking for ways to use the ash that is produced in the incineration process. Most of the ash is basically inert—you could almost use it for roadbed material, and it has been used for that in other countries. But, there are heavy metals in the ash that you want to get out before utilizing it. I'll address the presence of heavy metals in the ash later on.

What are the "negatives?" There are three major negatives about resource recovery that you will hear about. First, is what are called trace organic emissions. That translates into the feared word "dioxins." Along with dioxin are other gases, such as carbon dioxide, sulphur dioxide and hydrogen chloride. Second, heavy metal emissions. Finally, the major negative, the one you're probably reading about the most today, is ash disposal.

So let's take each of these major issues and address them. What about dioxins? Yes, dioxins are emitted from resource recovery plants. Having made that point, I will also tell you EPA (Environmental Protection Agency) has done a report which states that there are 13 parts per trillion of dioxins in almost every piece of paper you pick up, including the paper this is printed on. I will also tell you that if you go to Yugoslavia and you sample people's adipose tissue you will find that there are five parts of a trillion of dioxins. I pick Yugoslavia because they don't incinerate garbage, so the dioxin must be coming from other sources.

Dioxins come from multiple sources. However, all the studies that I've seen indicate there are more dioxins in the waste going in than there are dioxins coming out. And, most of the formation theories indicate that the dioxins are formed on the particles called "fly ash" that are carried along with the gases up the stack.



New Jersey for A Clean Tomorrow

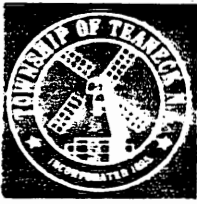
ENVIRONMENTAL ISSUES PAPER
ON
COMPREHENSIVE SOLID WASTE MANAGEMENT

RICHARD MAGEE, PH.D.
EXECUTIVE DIRECTOR
HAZARDOUS SUBSTANCE MANAGEMENT RESEARCH CENTER
NEW JERSEY INSTITUTE OF TECHNOLOGY

Transcript of Presentation at
Morris County Public Information Session
Madison, New Jersey

March 1989

1060X



OFFICE OF
PETER M. BOWER
DEPUTY MAYOR

September 26, 1989.

To the Freeholders of Bergen County:

**Township
of Teaneck**

PAUL A. VOLCKER
MUNICIPAL CLERK
TEANECK,
NEW JERSEY 07666
(201) 837-1600

As an environmental scientist and as the Deputy Mayor of Teaneck, I wish to put on the record my opposition to the present plans for an incinerator in Bergen County. Opposition to the incinerator has often been characterized as a "NIMBY" phenomenon. There is significant opposition to this incinerator in many other communities as well, including Teaneck.

The Bergen County incinerator has a present price-tag of \$425 million (which will grow to well over half a billion dollars when finally built) making this project the largest public works project in Bergen County history. Taxpayers should know that the project is economically and environmentally unsound.

While the details are not important for my message to you today, I am preparing a more detailed accounting of my objections to this project which will be sent to you in a few days.

Sincerely,

Peter Bower

Dr. Peter Bower

1069X



PARADOR DE MERIDA

Tel. (224) 31 38 00 Fax (224) 31 97 08 Para de la Constitución 3 26900 MERIDA (830202)

Good Evening,
 I'm sorry I can't be here tonight for the hearing of Assembly Bill 4105. The amendment and passage of this bill is vital. It is the first intelligent step towards stopping what will otherwise become The Holocaust of New Jersey.

Only madness + indifference can dictate 10 incinerators in a 10 mile radius that is already saturated with pollution. Assemblyman Rooney's article which appeared in the Record called attention to many significant facts including the compromised height of the smokestack. I wonder how many more facts are being withheld in fear of promoting a mass epodus of the area.

It is frightening to watch the agencies designed to protect the environment break or change their own rules + regulations to clear the way for the Bergen County Garbage Incinerator.

The DEP's attempt to automatically renew permits and waive background disclosure

Billy
Read this at
the meeting for me
if you want to.
please do it



fax # here
924-31-92-09

PARADOR DE MERIDA

Tel. (924) 31 38 00 Fax (924) 31 92 09 Plaza de la Constitución 3 96800 MERIDA (Badajoz)

to affect American Ref Fuel's problems
with soon to expire permits and anti
trust violations is sheer abuse of
power.

The Army Corp of Engineers in granting
permits to destroy the wetlands disgraces
itself. And the HADC should be
abolished for the poor job it has done.

It is nauseating to read both
Senators Bradley & Lautenberg & Congressman
Touzel's newsletters wherein they inform
us of their deep concern to "protect and
restore" the environment while they ignore
the problems of mass burn garbage incineration.
The destruction of wetlands and the adverse
behaviour of our government agencies.

The legislators sponsoring & supporting
Assembly Bill 4105 are acting in the best interest
of the people. To continue the path of
mass burn garbage incineration is a death
sentence for The State of New Jersey.

Billy - You know you can name
one of my ? to ^{107/18} R.
I know !!



3901
09/12/89apm

RESOURCE RECOVERY FACILITY IMPLEMENTATION

County ATLANTIC

Capacity 750 tpd

Franchise Holder

Host Municipality Egg Harbor Twp.

Implementing Agency

Ownership Type

Initial Tipping Fee

Initial Year of Operation 1992

Rate Setting Methodology

Vendor

County BERGEN

Capacity 3,000 tpd; 79.8 megawatts

Franchise Holder

Host Municipality Ridgefield Boro

Implementing Agency County Utilities Authority

Ownership Type Private

Initial Tipping Fee \$65.00 per ton

Initial Year of Operation 1993

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor American REF-FUEL

County BURLINGTON

Capacity

Franchise Holder Burlington County Board of Chosen Freeholders

Host Municipality Mansfield Twp (\$1.00 per ton host benefit);
Florence Twp. (\$1.16 per ton host benefit)

Implementing Agency Burlington County
Board of Chosen Freeholders

Ownership Type Public

Initial Tipping Fee \$34.67 per ton; \$45.99 per ton (Gross)

Initial Year of Operation 1989 LF; 1991 RDF/Co-composting
Facility

Rate Setting Methodology LF Tariff, BPU

Vendor Geological Reclamation Operations and Waste Systems
Inc. (GROWS) (Waste Management Inc.)

County CAMDEN

Capacity 1,050 tpd; 33.7 megawatts

Franchise Holder Camden County Energy Recovery Associates

Host Municipality City of Camden

Implementing Agency Pollution Control Financing Authority;
Improvement Authority (ash disposal agreement)

Ownership Type Private

Initial Tipping Fee \$85.00 per ton

Initial Year of Operation 1991

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Camden County Energy Recovery Associates (Foster
Wheeler Corp./Transtech, Inc.)

County CAMDEN (Pennsauken)

Capacity 500 tpd

Franchise Area Audubon, Cherry Hill, Haddonfield, Haddon, Lindenwold, Merchantville, Pennsauken, Tavistock, Voorhees, Collingswood and Oaklyn

Franchise Holder Pennsauken Solid Waste Management Authority

Host Municipality Pennsauken Twp.

Implementing Agency Pennsauken Solid Waste Management Authority

Ownership Type Private

Initial Tipping Fee \$63.15 per ton, including ash disposal

Initial Year of Operation 1992

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Ogden Martin Systems of Pennsauken, Inc.

County ESSEX

Capacity 2,250 tpd; 60 megawatts

Franchise Holder Essex County

Host Municipality City of Newark

Implementing Agency Essex County

Ownership Type Private

Initial Tipping Fee \$68.00 per ton

Initial Year of Operation 1991

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor American REF-FUEL Company of Essex County

County GLOUCESTER

Capacity 575 tpd; 12 megawatts

Resource Recovery Franchise Holder SES Gloucester Co., LP

County LF Franchise Holder County Improvement Authority

Host Municipality West Deptford Twp.

Implementing Agency County Improvement Authority

Ownership Type Private

Initial Tipping Fee \$59.60 per ton (exc. \$25.00 ash disposal fee.)

Initial Year of Operation 1990

Rate Setting Methodology BPU Generic Order

Vendor SES Gloucester Co., LP (Wheelabrator Technologies, Inc.)

County HUDSON

Capacity 1,500 tpd

Franchise Holder

Host Municipality Kearny Twp.

Implementing Agency County Improvement Authority

Ownership Type Private

Initial Tipping Fee \$57.17 per ton

Initial Year of Operation 1993

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Ogden Martin Systems, Inc.

County HUNTERDON

In July 1986, Hunterdon County signed a contract with Warren County authorizing Hunterdon County to transport 30,000 tons per year of Hunterdon County solid waste to Warren County's 400 tpd resource recovery facility in Oxford Township for incineration through December 31, 2001. The contract stipulates that Hunterdon County shall have the right of first refusal to utilize any unused capacity at the Oxford facility for ten years. As of June 1989, Warren County transports approximately 1,200 tons per week to the Oxford facility, or approximately 43 percent of the facility's 2,800 ton per week capacity. Hunterdon County transports approximately 1,200 tons per week to the Warren County resource recovery facility, or approximately 70 - 75 percent of all the solid waste it generates. Thus, the facility is operating with a capacity shortfall of approximately 400 tons per week.

Terms: 400 tpd = 2,800 tons per week
145,600 tons per year

County MERCER

Capacity 975 tpd

Franchise Holder County Improvement Authority

Host Municipality Hamilton Twp.

Implementing Agency County Improvement Authority

Ownership Type Public

Initial Tipping Fee

Initial Year of Operation 1993

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Westinghouse

County MIDDLESEX

Capacity 2,250 tpd

Franchise Holder

Host Municipality Sayreville Boro

Implementing Agency County Utilities Authority

Ownership Type

Initial Tipping Fee \$48.22 per ton

Initial Year of Operation 1993

Rate Setting Methodology

Vendor

County MONMOUTH

Capacity 1,700 tpd

Franchise Holder

Host Municipality Tinton Falls Borough

Implementing Agency Monmouth County

Ownership Type Public

Initial Tipping Fee

Initial Year of Operation 1994

Rate Setting Methodology

Vendor

County MORRIS

Capacity 1,300 tpd

Franchise Holder

Host Municipality Roxbury Township

Implementing Agency County Municipal Utilities Authority

Ownership Type

Initial Tipping Fee

Initial Year of Operation 1993

Rate Setting Methodology

Vendor Foster Wheeler Corporation

County OCEAN

Capacity 1,050 tpd

Franchise Holder

Host Municipality Waretown, Ocean Twp.

Implementing Agency Pollution Control Financing Authority

Ownership Type Private

Initial Tipping Fee

Initial Year of Operation 1992

Rate Setting Methodology

Vendor

County PASSAIC

Capacity 1,434 tpd; (3) 478 tpd incinerators, 45 megawatts
(1440 - 1750 tpd total, approx. 500,000 tons per
year, 344 operating days per year)

Franchise Holder County Utilities Authority

Host Municipality City of Passaic

Implementing Agency County Utilities Authority

Ownership Type Private

Initial Tipping Fee

Initial Year of Operation 1993

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Foster Wheeler Passaic, Inc.

County UNION

Capacity 1,440 tpd

Franchise Holder County Utilities Authority

Host Municipality City of Rahway

Implementing Agency County Utilities Authority

Ownership Type Public

Initial Tipping Fee

Initial Year of Operation 1994

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Ogden Martin Systems of Union, Inc.

County WARREN

Capacity 400 tpd; (116,000 - 135,000 tons per year) 13.5 megawatts

Warren County Waste Stream 1,500 - 1,800 tons weekly; 2,200 tons per week anticipated

Hunterdon County Waste Stream 82 tpd

Franchise Holder Pollution Control Financing Authority

Host Municipality Oxford Twp.

Implementing Agency Pollution Control Financing Authority

Ownership Type Private

Initial Tipping Fee \$98.00 per ton; (ash disposal, \$65.00 per ton; hazardous ash disposal, \$250.00 per ton)

Initial Year of Operation 1988

Rate Setting Methodology P.L. 1985, c. 38 Contract

Vendor Warren Energy Resource Co. (Blount Energy Resource Co.)

Source: New Jersey Board of Public Utilities, 1985-89; New Jersey Department of Environmental Protection, 1985-1989.

Table I
Projected Resource Recovery Disposal Costs
Resource Recovery Facility

<u>County</u>	<u>Capacity (Tons/Day)</u>	<u>Initial Year of Operation</u>	<u>Estimated Tipping Fee (Dollars/Ton)</u>
Atlantic	750	1992	
Bergen	3,000	1993	\$65.00
Burlington	500	1991	45.99
Camden	500	1992	63.15
Camden	1,050	1991	85.00
Essex	2,250	1991	68.00
Gloucester	575	1990	84.60
Hudson	1,500	1993	57.17
Mercer	975	1993	
Middlesex	2,250	1993	48.22
Monmouth	1,700	1994	
Morris	1,300	1993	122.00
Ocean	1,050	1992	
Passaic	1,434	1993	
Union	1,440	1994	
Warren	400	1988	98.00

Source: Figures derived from various public and private sources.

Table II
Proposed County Resource Recovery Facilities

<u>County</u>	<u>Capacity (Tons/Day)</u>	<u>Estimated Cost</u>	<u>Estimated Operation Date</u>
Atlantic	750	\$ 83,000,000	1992
Bergen	3,000	425,000,000	1993
Burlington	500	55,000,000	1991
Camden	500	62,000,000	1992
Camden	1,050	154,000,000	1991
Cape May	500	55,000,000	1991
Essex	2,250	343,000,000	1991
Gloucester	575	83,750,000	1990
Hudson	1,500	148,000,000	1993
Mercer	975	117,538,000	1993
Middlesex	2,250	350,000,000	1993
Monmouth	1,700	225,000,000	1994
Morris	1,300	135,000,000	1993
Ocean	1,050	208,000,000	1992
Passaic	1,434	115,099,600	1993
Salem	220	28,000,000	1991
Sussex	400	44,000,000	1991
Union	1,440	107,516,228	1994
Warren	400	53,216,000	1988

\$2,767,007,428

Source: Derived from figures provided by the Department of Environmental Protection & the Board of Public Utilities, 1989.

Table III
Board of Public Utilities Project Review
and Implementation Status

<u>County</u>	<u>Capacity (Tons/Day)</u>	<u>Project Status</u>	<u>Estimated Operation Date</u>
Bergen	3,000	Under Review	1993
Camden (Pennsauken)	500	Approved	1992
Camden	1,050	Approved	1991
Essex	2,250	Approved	1991
Gloucester	575	Approved	1990
Hudson	1,500	Under Review	1993
Mercer	975	Under Review	1993
Passaic	1,434	Under Review	1993
Union	1,440	Under Review	1994
Warren	400	Operational	1988

Source: Board of Public Utilities, June, 1989.



New Jersey for A Clean Tomorrow

ENVIRONMENTAL ISSUES PAPER
ON
COMPREHENSIVE SOLID WASTE MANAGEMENT

RICHARD MAGEE, Ph.D.
EXECUTIVE DIRECTOR
HAZARDOUS SUBSTANCE MANAGEMENT RESEARCH CENTER
NEW JERSEY INSTITUTE OF TECHNOLOGY

Transcript of Presentation at
Morris County Public Information Session
Madison, New Jersey

March 1989

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Generally, I'm not a very popular person when I talk about resource recovery incineration. This is due to the fact that solid waste disposal is an extremely controversial subject. Of this there is no doubt, especially across New Jersey.

I'd like to make a point for your consideration. That point is the following: Look at any major industrialized nation in the world, any major industrialized region which doesn't landfill solid waste. They can not solve their solid waste disposal problem using only one or two disposal technologies.

I ask you to consider this because you will hear people say that we can recycle our way out of the solid waste crisis. I honestly don't believe that. I look around the world and can't find a basis for that claim. So, therefore, I come with at least one bias, resource recovery incineration must play some portion in solving the solid waste management problem. The challenge to any county, and to the State of New Jersey, is what part will incineration play in providing environmentally sound solid waste management.

Nationally we're landfilling 85% of our solid waste—85%. Why? We're a land-rich nation. Presently, only 10% of our waste is being recycled, and approximately 5% is being incinerated. Countries like Sweden incinerate 70% of their waste. Japan, the model country in the world for recycling, achieves 48% recycling, but they end up incinerating 70% of what remains.

Now, what are the "good" things about resource recovery? First, we produce energy. Think about this, because the energy that is produced would have to come from some other source. Generally, it's the energy generated by fossil fuel plants that can be replaced—not the nuclear plants, because economics dictate that nuclear plants run at full-load. So you're replacing energy that would have come from another combustion source. I think that's a definite plus. The big plus however is we really don't burn garbage to produce energy, we do it because we end up with only 10% of the volume we started with.

Look at a normal waste stream. About 25% of it is non-combustible. We don't even try to burn things like refrigerators. So, the big attractiveness for burning garbage is that we have less mass, less volume to dispose of. With available landfill space limited, reducing the volume of the waste extends the life of the landfill.

Now, to digress for a moment, we have research going on, looking for ways to use the ash that is produced in the incineration process. Most of the ash is basically inert—you could almost use it for roadbed material, and it has been used for that in other countries. But, there are heavy metals in the ash that you want to get out before utilizing it. I'll address the presence of heavy metals in the ash later on.

What are the "negatives?" There are three major negatives about resource recovery that you will hear about. First, is what are called trace organic emissions. That translates into the feared word "dioxins." Along with dioxin are other gases, such as carbon dioxide, sulphur dioxide and hydrogen chloride. Second, heavy metal emissions. Finally, the major negative, the one you're probably reading about the most today, is ash disposal.

So let's take each of these major issues and address them. What about dioxins? Yes, dioxins are emitted from resource recovery plants. Having made that point, I will also tell you EPA (Environmental Protection Agency) has done a report which states that there are 13 parts per trillion of dioxins in almost every piece of paper you pick up, including the paper this is printed on. I will also tell you that if you go to Yugoslavia and you sample people's adipose tissue you will find that there are five parts of a trillion of dioxins. I pick Yugoslavia because they don't incinerate garbage, so the dioxin must be coming from other sources.

Dioxins come from multiple sources. However, all the studies that I've seen indicate there are more dioxins in the waste going in than there are dioxins coming out. And, most of the formation theories indicate that the dioxins are formed on the particles called "fly ash" that are carried along with the gases up the stack.

Richard Magee, Ph.D., New Jersey Institute of Technology

Therefore, the critical way that we control dioxin emissions in resource recovery plants is through good particulate removal. The key, in my mind, to any successful resource recovery plant is good particulate removal. The standard air emission control system that most people are looking at right now includes dry scrubbers with bag house filters, something that almost looks like your vacuum cleaner bag. Results have shown that you can remove greater than 99% of all dioxins produced during incineration and subsequent heat recovery.

Next, heavy metals. Heavy metals are elements and cannot be destroyed in the incinerator. Many of these metals vaporize and then condense on fly ash. Therefore, it is important that a facility have good particulate removal technology. Again, you look at all the data and it indicates you can remove, with the exception of mercury, better than 99% of all the metals that go up the stack. Mercury can be removed at about 97% efficiency. Heavy metal emissions can also be controlled by effective particulate removal.

You may ask, what does it mean to me? What are the health risks from the remaining emissions?

Let's discuss health risk assessments. A health risk assessment calculates the "risk" associated with the operation of a resource recovery facility. The first step in any assessment is to determine where the highest ground level concentration of emissions is from the plant. Then one defines the most exposed individual, the "MEI," as one who lives at that spot. We then assume that the most exposed individual stands there for 70 years and doesn't move.

Scientists go to great lengths to do the best job they can, to make the most conservative assumptions, and go to extremes to protect public health. They calculate what you would inhale, what you would ingest if you were eating food grown on that spot. They add all this data together and come up with "the risk" for the most exposed individual.

Typically, health risk assessments for resource recovery incineration facilities run somewhere between one in a million to ten in a million additional cancer deaths in a 70-year lifetime—if you were to live at the location of the MEI, day and night, for 70 years.

The American Cancer Society states that our chances are 1 in 4 to 1 in 5 of getting cancer over a 70-year lifetime. That would equate to 200,000 to 250,000 cases of cancer in every million people. The operation of a resource recovery plant might cause an additional 10 incidents of cancer under the most conservative estimates. One would expect that the actual number would be much less. Supporters of resource recovery incineration think that is an acceptable risk. Someone else might argue that is not an acceptable risk. This becomes a judgment call.

The third issue that comes up about resource recovery plants concerns the incinerator ash. If you've been reading about the operation in Warren County, this is the issue in the headlines. There are two types of ash that are the result of the incineration process. One is called the bottom ash—the ash in the bottom of the incinerator which doesn't get vaporized and caught in the air pollution control equipment. The other type is the fly ash—that which we take out of our emissions collection system. Generally it's the fly ash that poses a problem, but let's just put it all together for the purpose of this discussion.

In terms of safety, the State of New Jersey requires double-lined landfills for safety. And, in the future it may be required to monofill ash—landfill ash by itself. There are a number of reasons for this which revolve around the possibility of heavy metals leaching into water supplies. In simple terms, research indicates that the metals will not leach from the ash from normal rainfall because they cling tightly to the ash and require an acidic "wash" to be released. Since there will be no organic waste disposed of with the ash, and it is the presence of organic waste which influences acidity, this is highly unlikely. Personally, I think it's an overkill (monofilling ash), but when you discuss the safety of the environment there's nothing wrong with overkill.

So, there is double protection for the ash disposal problem. If we dispose of the ash by itself, we will never get the type of acidity in the leachate which will pull the metals out. And, if for some reason we are wrong in this evaluation, we will have a leachate collection system built into the double-lined landfills required by the state which will collect and treat the leachate so metals do not get into groundwater.

In conclusion, let me state that resource recovery is a valuable technology which provides efficient waste disposal across the United States and throughout the world. As a scientist, I recognize that there are areas of concern with the technology among the general public, and I have studied these issues in detail. I am convinced that, when properly implemented and controlled, waste-to-energy resource recovery incineration facilities are an effective and efficient component in a total program of waste management and disposal and pose minimal risk to public health and the environment.

Richard Magee, Ph.D., is the Executive Director of the Hazardous Substance Management Research Center at the New Jersey Institute of Technology. Dr. Magee serves as Director of the Northeast Hazardous Substance Research Center, one of five national research centers established by the United States Environmental Protection Agency. He is also a Professor in the Departments of Mechanical Engineering and Chemical Engineering, Chemistry and Environmental Science at the New Jersey Institute of Technology.

New Jersey for A Clean Tomorrow (ACT) is a not-for-profit educational organization. New Jersey ACT was formed to inform and educate residents and elected officials of New Jersey about the solid waste disposal crisis and its solution. New Jersey ACT supports a comprehensive solid waste management strategy, which includes:

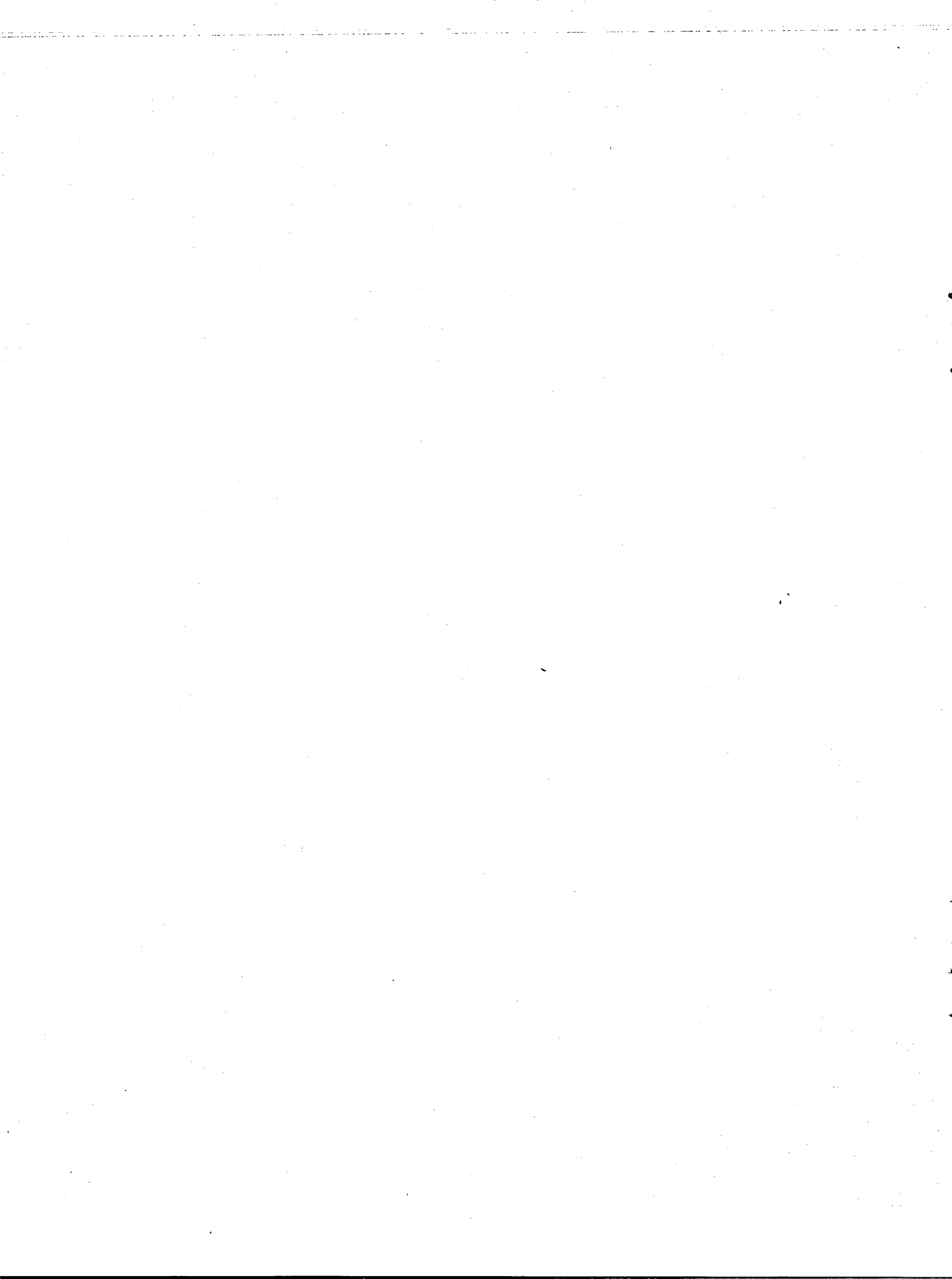
- source reduction;
- recycling;
- resource recovery incineration; and,
- use of modern, lined landfills.

New Jersey ACT hopes to provide a thorough understanding of the needs, benefits and technologies associated with comprehensive solid waste management. As part of New Jersey ACT's efforts, an independent Technical Advisory Panel (TAP) consisting of research scientists and physicians has been established under the direction of Richard Magee, Ph.D., Executive Director of the Hazardous Substance Management Research Center at the New Jersey Institute of Technology.

For additional information on New Jersey ACT, the Technical Advisory Panel, or issues including ash management, air emissions and risk assessment, contact:

Erica Schiffman, New Jersey ACT Project Manager, at (201) 225-1180.





PRESS RELEASE

AGRIPOST, INC. P.O. BOX 2449, POMPANO BEACH, FL 33061 (305) 971-9167

FOR IMMEDIATE RELEASE

Contact: Andrew Krieg
305-938-9390

David Smith
305-971-9167

AGRIPOST PROJECT UPDATE

JULY, 1989

Pompano Beach, FL -- Agripost, Inc. has announced that it has completed 65% of construction at its Dade County, Florida solid waste composting plant. The facility is being built by Metric Constructors, Inc., a division of J. A. Jones Company, Charlotte, N.C. Lockwood-Greene Engineers, Spartanburg, S.C., are the designers/engineers for the project.

The project completion date is now scheduled for late 1989. Full production is set to commence during the first quarter, 1990. At that time, it is projected that the Agripost non-combustion, enclosed municipal solid waste composting plant will process up to 250,000 tons of solid waste per year under its contract with Metropolitan Dade County, Florida.

During the period after final construction and prior to full start-up, Agripost will operate the facility solely for the purpose of conducting equipment and machinery performance tests and to fine tune its proprietary process.

- more -

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Presently, Agripost has constructed an Interim Market Development Facility (IMDF) which is being operated to produce limited amounts of its end-product (Agrisoil) for testing purposes. It is now accepting solid waste which has undergone a primary shredding from Dade County's Black Point facility. Once it enters the IMDF line, it is milled again, composted, remilled and screened to produce a product similar to Agrisoil, the final marketable soil amendment that will be manufactured in the fully constructed plant. The company also reported that advance marketing programs have been instituted for Agrisoil and preliminary results are most favorable.

The Agripost plant will be operated under contract by Jones Operations and Maintenance, Charlotte, N.C.

* * *

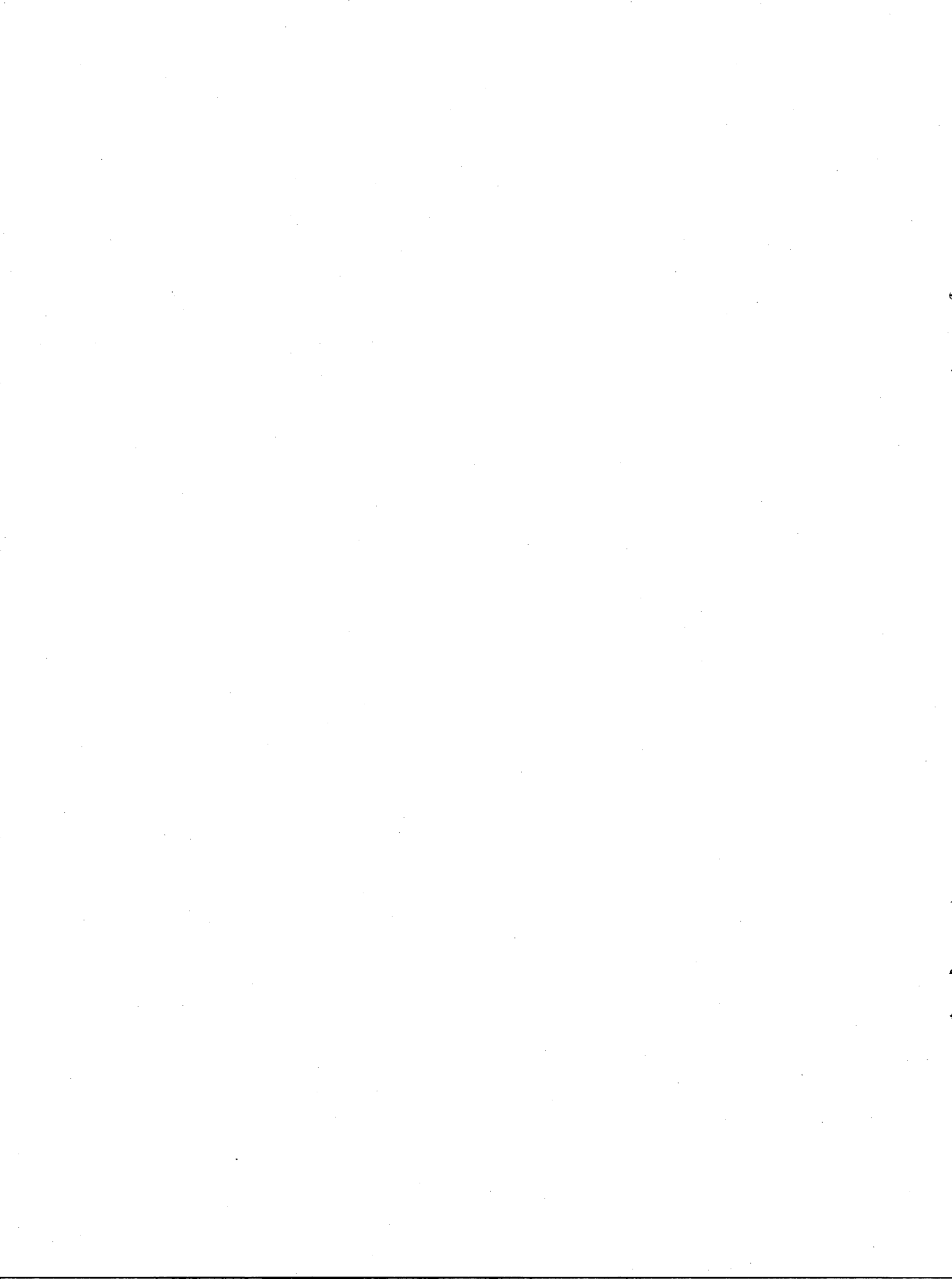
AGRIPOST™

THE COMPLETE SOLUTION TO SOLID WASTE PROBLEMS



AT PEACE WITH THE ENVIRONMENT

109FX



PROPOSAL
FOR A
RECYCLING AND WASTE PROCESSING
FACILITY

FOR

ATLANTIC COUNTY,

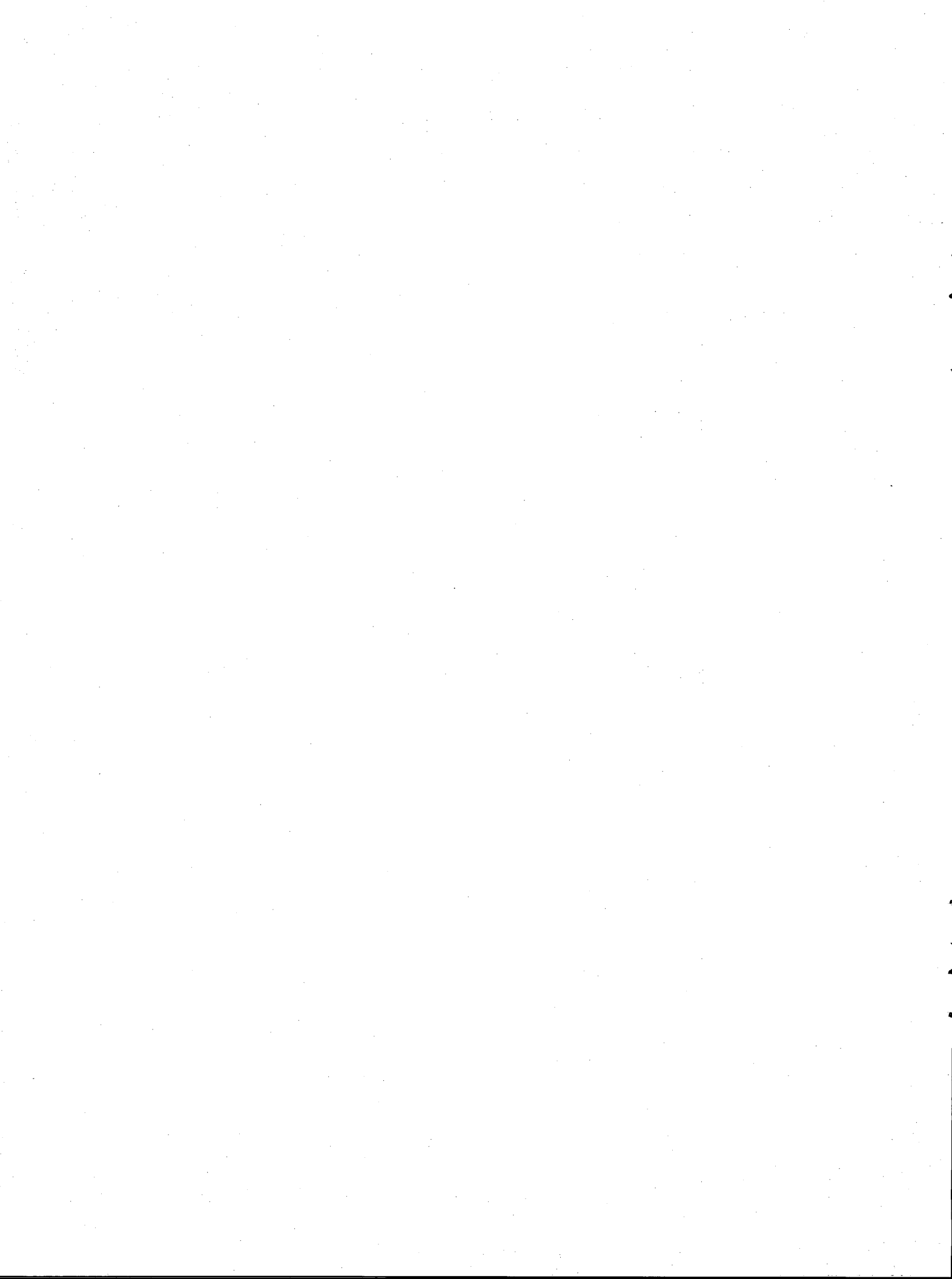
NEW JERSEY

Prepared By:

A.W.A.R.E

America's Waste and Recycling Effort
8302 Dunwoody Place, Suite 150
Atlanta, Georgia 30338

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Sample

A.W.A.R.E

1.0 ATLANTIC COUNTY, NEW JERSEY

1.1 EXECUTIVE SUMMARY

1.2 PROPOSER

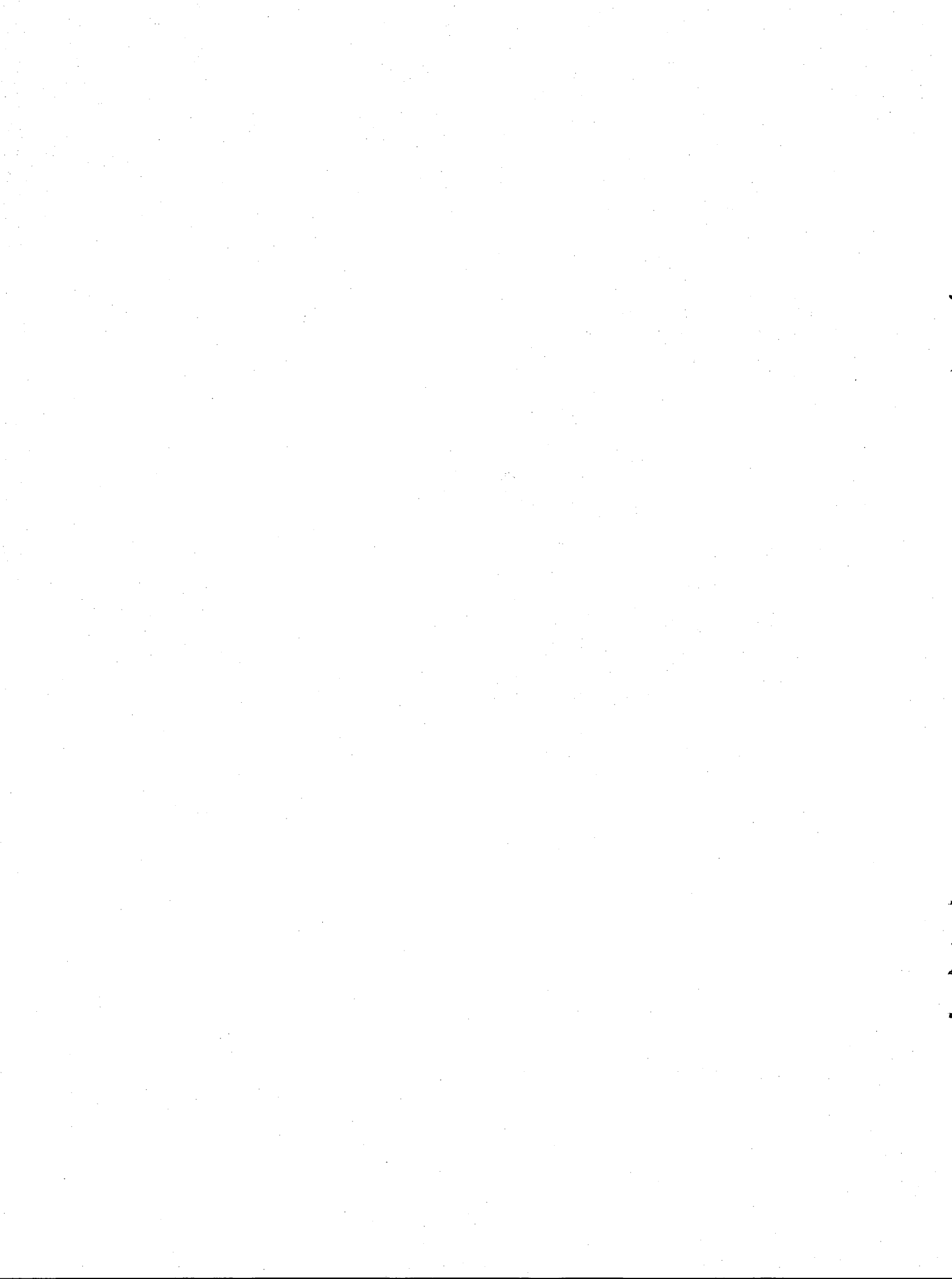
(A.W.A.R.E, Inc.) America's Waste and Recycling Effort, Incorporated, a privately held company with Corporate Headquarters in Atlanta, Georgia proposes to finance, design, have constructed and own and operate a Reuter Recycling and Waste Processing Facility in and for Atlantic County, New Jersey.

The entire investment will be 100% financed by A.W.A.R.E. No public funds are needed and there is no risk to the County, except the contingent liability of guaranteeing the waste flow to the plant and the terms and conditions of a long-term disposal contract and tipping fee.

1.3 PROPOSAL

A.W.A.R.E proposes to reduce by up to 90% the landfilling of solid waste by Atlantic County through utilization of the Reuter Recycling and Waste Processing technology.

The A.W.A.R.E facility would be capable of accepting and processing one thousand tons per day, 1,000 TPD, of acceptable municipal and commercial solid waste.



It is anticipated that the delivery of an average of seven hundred tons per day, 700 TPD, of acceptable municipal solid waste, MSW, would be contracted for and guaranteed by Atlantic County under a "put or pay" agreement, for a period of twenty (20) years.

The facility would thus have the capacity to handle not only the variations in the waste stream from the summer tourist influx, but also the additional trash flow expected to be generated by the continued growth in Atlantic County.

In the interim, the facility would receive acceptable commercial trash from private haulers located within Atlantic County. The facility would therefore be self-sufficient and there would be NO IMPORTING of refuse from outside the County.

The A.W.A.R.E facility is intended to complement and support the existing County, private and local Recycling Programs to ensure the maximum in materials recovery and landfill abatement. The facility would have the space and capacity to also operate as an Intermediate Processing Facility, IPF, in lieu of or to take the overflow from your current IPF.

1.4 A.W.A.R.E is proposing the use of the proven Reuter Recycling and Waste Processing Technology to process the MSW into readily-marketable commodities.

Plastics, corrugated, aluminum, ferrous, bi-metal, papers and glass will be sorted from the wastestream and processed for sale.

The combustible fraction will be processed and pelletized into RDF fluff and dRDF fuel pellets, a viable and marketable product utilized in coal burning industrial applications to reduce, in direct proportion to use, sulfur emissions.

The organic fine fraction will be composted for garden use and landfill cover.

1.5 SITING

The proposed location for the facility is the current Atlantic County landfill or an existing landfill site to eliminate the need for new permits and the ensuing problems, delays and inevitable complications. This site would significantly reduce the lead time until start-up of the new facility.

The current landfill will cease operation in September of 1990 and AWARE proposes an opening at the site of 5 to 10 acres to handle the County refuse until the new facility is in operation and to accept the 10 to 15% residue from the initial operation of the plant.

Once in operation, AWARE would begin the reclaiming of the site so that space would be available to accept the normal plant residue.

AWARE would be responsible for all of their own closures. The County would be responsible for all others.

1.6 FACILITY

The facility would be capable of processing 1,000 TPD of MSW using the Reuter Recycling Process to separate and recover plastics, corrugated, paper, metals, aluminum, glass and ferrous, and to produce RDF fluff and pellets and compost for resale. The AWARE facility will be recycling 85 to 90% of the MSW received.

The facility will consist of two structures: one for processing of MSW and materials recovery and the other for production of compost.

The materials recovery facility will be fully enclosed, insulated and ventilated. It will include an indoor tipping floor for the receipt of MSW, separate processing area for recovery plus an office, control room, and maintenance shop.

The composting facility will be a covered structure with windrow, processing and loading equipment.

All structures will be in compliance with the Building Officials Code Administration (BOCA) and the building regulations and code of the State of New Jersey and Atlantic County. They will be environmentally sound, aesthetically pleasing and constructed in accordance with current standards and codes.

Qualified and acceptable Atlantic County construction firms and sub-contractors will be used wherever possible in the construction of the facility, contributing to the economic growth and development of the County.

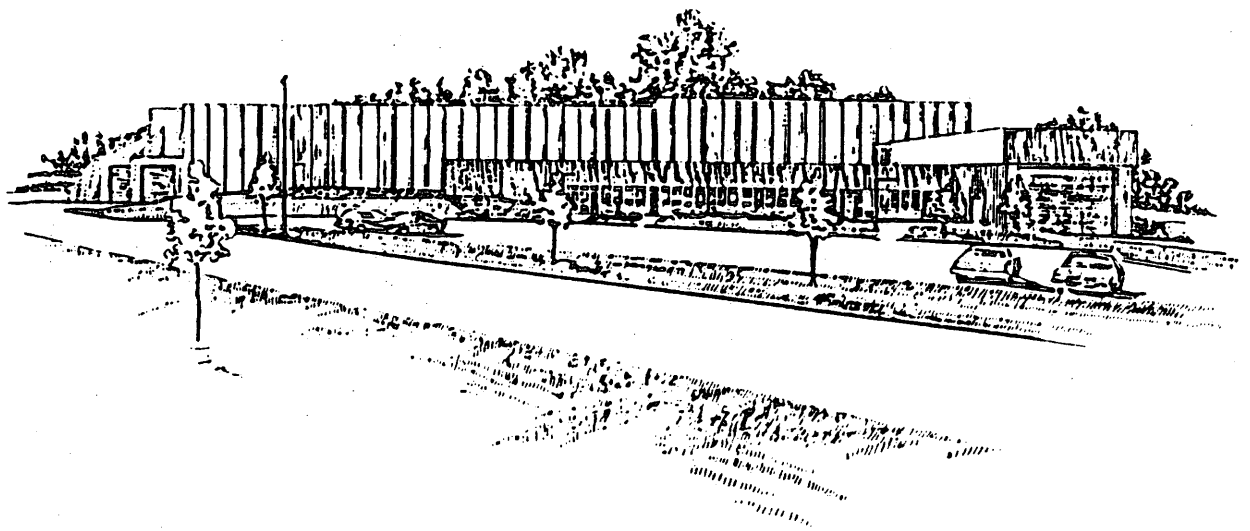
In addition, AWARE will utilize qualified minority-owned business (MBE) and woman-owned business (WBE) enterprises wherever possible.

1.7 TIP FEES

The proposed tipping fee for the facility, based on location at the current landfill site, is \$ per ton. This fee is based on a quick response to the proposal and the assistance of the County in the Permit process.

The proposed fee is based on beginning operation of the plant in May, 1991.

The proposed fee would be subject to periodic increases during the 20 year proposed contract, based on the consumer price index (CPI), plus other variables subject to the negotiation and agreement of both parties.



The Reuter recycling plant in
Eden Prairie, Minnesota

1123X

2.0 PROPOSER QUALIFICATIONS

2.1 A.W.A.R.E has the experience, stability and financial strength to build, own and operate the proposed Recycling and Waste Processing Facility. Additionally, our associate, Reuter has been in the solid waste business for over 20 years and has supplied over 125 municipal accounts nationally with its solid waste mechanized collection system products and services. It is a long established public company with an excellent reputation for quality and service.

Reuter, Inc. owns and operates a 400/800 TPD Materials Recovery Facility designed to recover plastics, corrugated, paper, aluminum, metals, organic residues for composting and produces three types of RDF. The facility is located in Eden Prairie, Minnesota and is the most advanced recycling operation in the world.

Reuter, Inc. is also in the permitting process for a 660 TPD Recycling and Waste Processing Facility in Pembroke Pines, Florida. This Reuter own and operate Municipal project is scheduled for start up in late 1990.

Reuter, Inc. is also in the permitting process for a 300 TPD compost project in Minnesota. Anticipated start up for this own and operate project is mid 1990.

2.2 A.W.A.R.E has purchased Reuter technology and is totally committed to the recycling effort.

3.0 PROPOSAL

- 3.1 A.W.A.R.E proposes to reduce by up to 90% the landfilling of solid waste by Atlantic County through utilization of the Reuter Recycling and Waste Processing technology.
- 3.2 The A.W.A.R.E facility would be capable of accepting and processing one thousand tons per day, 1,000 TPD, of acceptable municipal and commercial solid waste.

It is anticipated that the delivery of an average of seven hundred tons per day, 700 TPD, of acceptable municipal solid waste, MSW, would be contracted for and guaranteed by Atlantic County under a "put or pay" agreement, for a period of twenty (20) years.

The facility would thus have the capacity to handle not only the variations in the waste stream from the summer tourist influx, but also the additional trash flow expected to be generated by the continued growth in Atlantic County.

In the interim, the facility would receive acceptable commercial trash from private haulers located within Atlantic County. The facility would therefore be self-sufficient and there would be NO IMPORTING of refuse from outside the County.

The A.W.A.R.E facility is intended to complement and support the existing County, private and local Recycling Programs to ensure the maximum in materials recovery and landfill

abatement. The facility would have the space and capacity to also operate as an Intermediate Processing Facility, IPF, in lieu of or to take the overflow from your current IPP.

3.3 A.W.A.R.E, Inc., in conjunction with Reuter. will design the process, construct the plant, supply all equipment, be responsible for all capital investment and financing and own and operate the facility.

3.4 A.W.A.R.E will be the prime contractor for the proposed Recycling and Waste Processing Facility. A.W.A.R.E will own and operate the facility and will market the recovered products. The contractual relationship by the County will be with A.W.A.R.E, Inc.

3.5 The primary products to be marketed are dRDF pellets and/or fluff and/or composting and recyclable materials. The actual sales will be conducted by A.W.A.R.E. The material recovery process will be in a fully-enclosed building. The markets for the recyclables, such as corrugated, HDPE, PET and FILM plastics, aluminum, glass and ferrous metal along with the fuel pellets and compost product are well established.

3.6 The immediate local area will be given priority as far as construction and operational jobs, contracts and purchases for the facility. All of the equipment will be made in the U.S. Certain support equipment, such as balers, trucks and material handling equipment can be purchased locally.

The plant operation will create approximately 180 new jobs (two shifts), plus a Saturday shift, assuming a 1,000 TPD operation. Local unemployed and economically-disadvantaged will be hired if they are qualified and capable of accepting the conditions of the workplace.

4.0 PROCESSING SYSTEM DESCRIPTION

4.1 Capacity - A.W.A.R.E is proposing a facility with a throughput capacity of 1,000 tons per day of acceptable MSW during a twelve month period. Annual throughput is proposed as 312,000 tons per year (TPY) in the Base Case using six days for processing and receiving.

4.2 Acceptable Waste Description - The definition of acceptable solid waste is described as:

- o Domestic refuse proper, sometimes referred to as garbage, i.e., kitchen wastes, dirt of all sorts collected by sweeping, rags, paper, cartons, tins, various packaging materials, glass and crockery, ashes, etc.
- o Wastes resulting from the running of restaurants, bars, hotels, theaters, sports stadiums, and public assembly places in general.
- o Wastes resulting from offices, storage places, warehouses, and other buildings.
- o Wastes/rubbish/litter - resulting from cleaning the markets, public gardens and parks, official buildings, excluding, of course, biologically dangerous wastes.
- o Rubbish/litter resulting from cleaning the streets, squares, places in front of buildings, private roads and gardens.

Excluded from the list are:

- o Industrial wastes, objects that are too bulky, as well as objects which could conceivably cause damage to the machines of the plant.
- o Wastes such as earth, sand, concrete, construction, or demolition materials resulting from private or public construction or demolition.
- o Inflammable and/or explosive gases, liquids and solids.
- o Anatomic wastes, dangerous wastes from medical and veterinarian laboratories, etc., as well as all radioactive wastes.

In addition to the excluded items listed above, certain material should be separated from the waste stream in the receiving area prior to feeding them into the processing equipment:

- o Oversize, bulky waste such as furniture, mattresses, appliances, bicycles, etc.
- o Carpets, tires, ropes, hoses.
- o Industrial textiles, industrial plastics.
- o Large quantities of steel strapping.
- o Solid iron parts.
- o Tree stumps or timber greater than 1" diameter.
- o Rubble, stone, construction and demolition debris in large quantities.
- o Any part in one dimension larger than 36".

The bulk density of the solid waste should be approximately 9 - 12 lbs. per cubic foot.

4.3 Process - All process steps described below are shown on the Flow Sheet, Table 4.6 and Process Diagram, Figure 4.7.

1. Collection trucks enter the building and stop at scale for weighing. The scale is computerized and tare weights of all trucks using the facility are prerecorded. Each driver has a plastic identification card with coded information imprinted on it for billing purposes. No truck can enter the facility without an account or designation. After weighing, the truck is directed to its tipping spot by the front-end loader operator.
2. Solid waste is dumped directly on the tipping floor and loaded into the feeding hoppers by the front-end loader. Large bulky items, appliances, batteries, tires, mattresses and any hazardous items harmful to personnel or machinery are pushed aside. Appliances and hazardous wastes, like pesticides, herbicide, and chemicals are stockpiled for further processing and disposal, as per State regulations.
3. The front-end loader alternately loads the two feeding hoppers with solid waste.
4. Refuse is carried from the receiving hopper by a slat-type conveyor (2) to the rotary drum screen (3), where it is sorted to size into fine waste less than 30 mm (less than 1 1/4"), a medium fraction from 30 to 200 mm (1 1/4 - 8") and a large fraction over 200 mm (8"+).

5. Fine waste is conveyed from the building for removal to a landfill or for further treatment as compost. Glass is removed from this fraction by glass separation equipment.
6. Medium and large fractions are both carried over conveyors where workers (4) remove by hand-picking, such products as aluminum, plastics, other recyclable materials and any materials such as gas cans, aerosol cans, etc. that could cause explosions in the hammer mill.
7. The large fraction portion is conveyed to a hammer mill (5) where it is reduced to a size similar to the medium fraction. This is mixed with the mediums on a belt conveyor which is fed into the air classifiers. Here fractions unsuitable for pelletizing are removed.
8. At this point, the large fractions are subjected to primary ferrous metal removal (6) by magnets. The ferrous materials are conveyed to a secondary magnetic separator (7) to further separate foreign materials from the metal before discharging into the storage bin.
9. The RDF is run through a splitter box where it passes over vibrating pads for even distribution into the air classifiers.

10. In the air classifiers, heavy material falls to the bottom, is fed through a rotary air lock and conveyed out to a heavy parts loading station for landfill disposal.
11. Lighter material leaves the top of the air classifier and is conveyed pneumatically to a cyclone separator (9), then fed through an airlock for conveying to a secondary shredder (10) for final size reduction.
12. A bag-type filter is used to filter dust from the pneumatic air streams on a partial flow basis.
13. Material discharged from the secondary shredder is refuse derived fuel (RDF) in "fluff" form and goes to the densifier (15) for pelletization into dRDF.

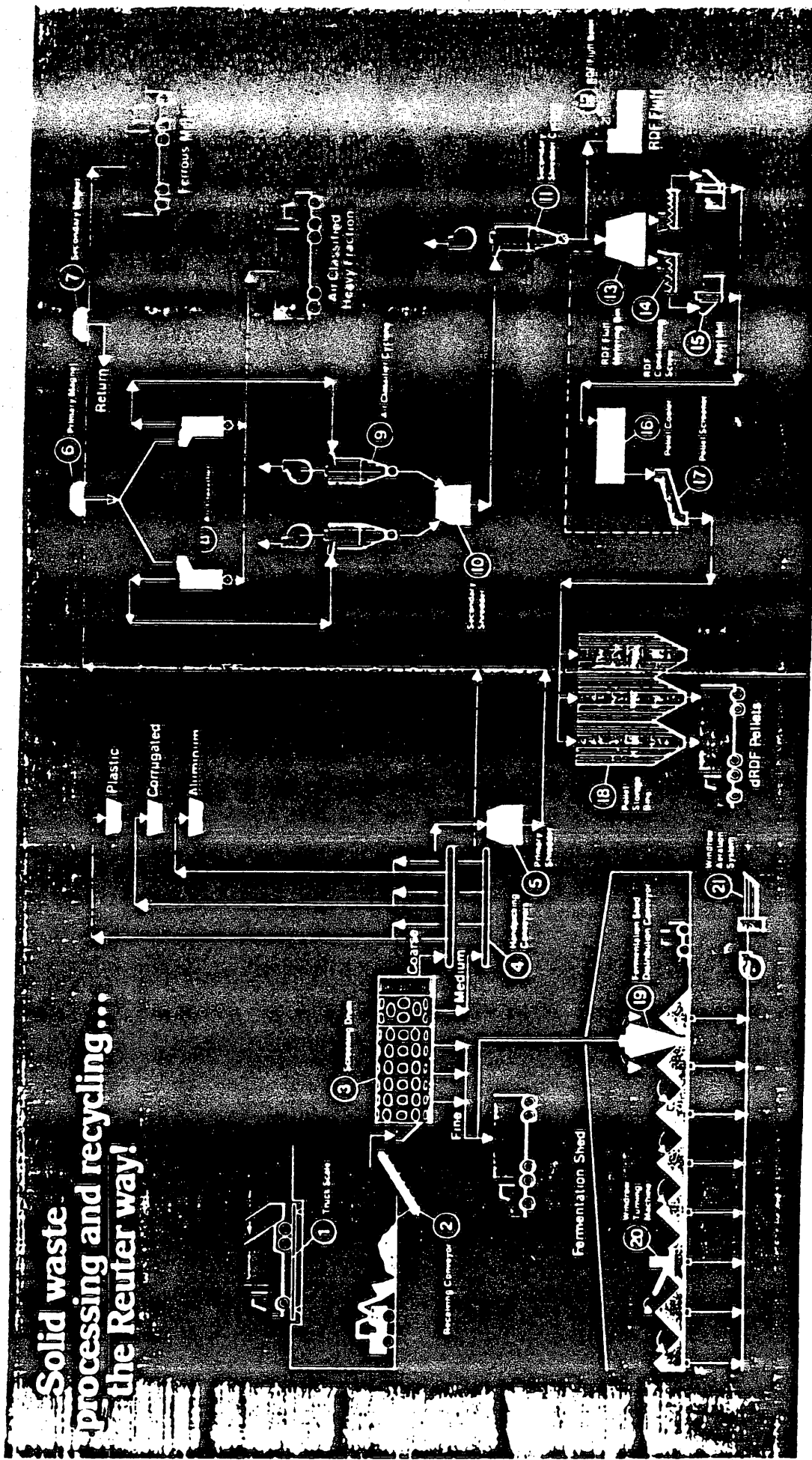
TABLE 4.6

Process Flow Sheet

Municipal Solid Waste

Receiving	Non-Processables Corrugated Oversize Ferrous
Primary Screening	Fines Mediums Coarse
Fines	Composting
Handpicking Mediums/Coarse	Corrugated Plastics Aluminum Bi-Metal
Primary Shredding	
Magnetic Separation	Ferrous
Air Classification	
Secondary Shredding	
Density	Fluff/dRDF

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4.4 Hazardous Wastes will be removed at three points in the process:

1. Tipping Floor
2. Medium Fraction hand - pick conveyor
3. Large Fraction hand - pick conveyor

4.5 Any and all suspected hazardous waste materials not previously detected and removed will be identified, separated from the waste stream, isolated and returned to the County for disposal at their cost. The disposal of unacceptable waste (other than hazardous), process residue, and process rejects, and nonprocessable waste will be handled and disposed of at the landfill.

4.6 A.W.A.R.E will establish and maintain an information system to provide data storage and ready retrieval of facility operating data. The operating company will prepare and maintain proper, accurate, and complete records and accounts of all waste transactions related to the facility. These records shall include, but not be limited to: safety and accident reports; quantity of acceptable waste delivered to the facility; quantity of compost, recovered materials produced and sold, and quantity of residue generated. Information shall also be made available to the County to provide future estimates for waste management. Access to the facility by County officials shall be unrestricted during normal operating hours.

4.7 A typical mass balance is shown in Table 4-9 as derived from the breakout of recyclables and product from the Reuter Eden Prairie facility.

TABLE 4-9

Processed Recyclables from Reuter Eden Prairie Plant:

Aluminum	1.1%
Corrugated	10.0%
Plastics (HDPE, PET, FILM)	7.0%
Bi-Metal	.5%
Ferrous	3.0%
Fluff/Pellets	40.0%
Fines	25.0%
Non-Processables	13.4%

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5.0 SITING

5.1 The proposed location for the facility is the current Atlantic County landfill or an existing landfill site to eliminate the need for new permits and the ensuing problems, delays and inevitable complications. This site would significantly reduce the lead time until start-up of the new facility.

The current landfill will cease operation in September of 1990 and AWARE proposes an opening at the site of 5 to 10 acres to handle the County refuse until the new facility is in operation and to accept the 10 to 15% residue from the initial operation of the plant.

Once in operation, AWARE would begin the reclaiming of the site so that space would be available to accept the normal plant residue.

AWARE would be responsible for all of their own closures. The County would be responsible for all others.

5.2 General Site Criteria - The following factors, conditions, and environmental issues concerning the site are discussed for review and consideration by the County:

- o The optimum site size for the recycling operation including the two buildings, parking, berming and landscaping, etc., is 50 acres. The entire operation could be placed on a much smaller parcel of land dependent upon the actual location at your landfill. This would be subject to consideration and discussion during the negotiation phase.

- o Rough grading for structural elements a minimum of 6 feet above any existing water table.
- o The building site should be essentially flat with 1% slopes under any proposed structure locations.
- o Soil compaction to a minimum 3,000 lbs. and drainage improvements such that the soils may saturate only briefly during periods of heavy rain. The areas should be classified as at least a 100 year flood plain areas or better, and not be subject to localized flooding during storms. If localized flooding is projected, the location of the site must be such that no structures may be impacted.
- o The availability and sizing of all utilities to the site is proposed to be by the County. Sewer requirements for people employed by A.W.A.R.E should be provided by the system. An in place fire protection system will be required.
- o All environmental issues will be addressed while obtaining the necessary permits and approvals. As for the noise impact, it will largely be limited to the movement of trucks into and through the vehicle stacking line of the receiving area and is expected to be clearly within acceptable standards of current local and state ambient noise levels.

- o As part of the permitting process, all appropriate agencies will be contacted for review and comment purposes as part of the environmental review process.

6.0 FACILITY

6.1 The facility would be capable of processing 1,000 TPD of MSW using the Reuter Recycling Process to separate and recover plastics, corrugated, paper, metals, aluminum, glass and ferrous, and to produce RDF fluff and pellets and compost for resale. The AWARE facility will be recycling 85 to 90% of the MSW received.

6.2 The facility will consist of two structures: one for processing of MSW and materials recovery and the other for production of compost.

The materials recovery facility will be fully enclosed, insulated and ventilated. It will include an indoor tipping floor for the receipt of MSW, separate processing area for recovery plus an office, control room, and maintenance shop.

The composting facility will be a covered structure with windrow, processing and loading equipment.

6.3 FACILITY CONSTRUCTION

The type of construction used shall be in accordance with currently accepted design practices and weather conditions for the Atlantic County area. Design and materials shall be selected such that the cost of maintenance for the

building and equipment shall be kept at an economic minimum over the life of the facility and shall be of a building material consistent with local ordinances.

All structures will be in compliance with the Building Officials Code Administration (BOCA) and the building regulations and code of the State of New Jersey and Atlantic County. They will be environmentally sound, aesthetically pleasing and constructed in accordance with current standards and codes.

All structures will be designed and constructed in accordance with the following current standards and building codes. Where local codes and standards are in conflict with any of the codes and standards listed below, the more conservative requirements shall govern a specific design area.

Standards and Codes:

- ASTM - American Society for Testing Materials
- AISC - American Institute of Steel Construction
- AWS - American Welding Society
- NAAM - National Association of Architectural Manufacturers
- SSPC - Steel Structures Painting Council
- ACI - American Concrete Institute
- ANSI - American National Standards Institute
- UBC - Uniform Building Code

The detailed specifications and schedules related to the procurement of equipment, concrete, airduct, internal building, surfacing materials, embeds, structural steel, non-structural steel, electrical, underground utilities, interface points, subsurface soil conditioning requests, backfilling, air purification system, painting and finishing, doors, windows and sealing materials under the responsibility to the General Contractor plus the responsibilities of the County in the supply of utilities lines and connections will be assembled and discussed during the negotiation phase.

Qualified and acceptable Atlantic County construction firms and sub-contractors will be used wherever possible in the construction of the facility, contributing to the economic growth and development of the County.

In addition, AWARE will utilize qualified minority-owned business (MBE) and woman-owned business (WBE) enterprises wherever possible.

6.4 FACILITY OPERATIONS

- 6.4.1 All acceptable residential and commercial solid waste will be processed except hazardous/toxic, demolition waste, and in general items which do not represent common trash, (i.e., cars, refrigerators, etc.). If hazardous or demolition waste is encountered, it will be separated on the

tipping floor and by the handpicking operation and returned to the County or the private hauler to be disposed of at their expense. See Section 4.2 for a further definition of acceptable solid waste.

6.4.2 Scheduling - The solid waste to be delivered would arrive at the facility throughout the day. Unloading time is estimated at six to eight minutes per vehicle, assuming no unusual situational delays. The queuing areas will be of generous design in order to prevent any backup on to public roads. Both tip-up and end dumping vehicles which are planned for by our design.

6.4.3 Storage - The process building tipping floor will have a storage capacity for holding approximately two (2) days of solid waste.

6.4.4 Security - No persons will be allowed to enter the A.W.A.R.E plant without authorization or an identification card. The entire project area is to be fenced with a single entrance and exit point.

6.4.5 Housekeeping - The tipping floor, processing, and recycling area and all other areas built and operated by A.W.A.R.E will be cleaned regularly. The outside yard will be policed daily by A.W.A.R.E for wind-blown papers and debris. Internal walls, machinery, and piping will be periodically cleaned and kept painted.

6.4.6 Out storage - No unprocessed wastes will be stored outdoors on site, unless there is an emergency situation. We will notify the County immediately of any such occurrence.

7.0 TIP FEES

The proposed tipping fee for the facility, based on location at the current landfill site, is \$ per ton. This fee is based on a quick response to the proposal and the assistance of the County in the Permit process.

7.1 The proposed fee is based on beginning operation of the plant in May, 1991.

7.2 The proposed fee would be subject to periodic increases during the 20 year proposed contract, based on the consumer price index (CPI), plus other variables subject to the negotiation and agreement of both parties.

7.3 At the end of the proposed 20 year contract period, A.W.A.R.E is prepared to sell the facility to the County under mutually agreeable terms and conditions should the County so desire, or to continue operating, based on a new agreement for the delivery of solid waste.

8.0 PROJECT ORGANIZATION

Project Organization - A.W.A.R.E will be the prime contractor for the proposed Recycling and Waste Processing Facility and is the legal entity with whom any contract would be entered into with Atlantic County.

A.W.A.R.E will finance, own and operate the Reuter turnkey project. A.W.A.R.E will be assisted by members of the project team as well as Reuter, Inc. to accomplish these objectives, and will retain the ultimate responsibility and authority for implementing the project.

A.W.A.R.E will use staff engineers and administrative personnel assisted by a local consulting firm or firms, to secure the necessary permits for the project as well as to prepare the design specifications for the environmental, civil, and architectural disciplines.

A.W.A.R.E will also provide the management structure for the operations of the facility and marketing of the by-products. The management plan objectives to accomplish this function are fully described below.

The Project Team will be selected and organized to fit the specific project requirements and schedule for Atlantic County. Project monitoring designed to address any problems that may be encountered and how they would be rectified are included in the narrative below.

The management plan objectives by scope of work are as follows:

- (1) PROPOSAL PHASE - During the proposal phase, A.W.A.R.E has designated Mr. Russell P. Hughes as the primary client contact responsible for the preparation and presentation of the complete project proposal. Each of the other team members will supply technical and support personnel and data as requested and are available to present the proposal and respond to questions.
- (2) NEGOTIATIONS/CONTRACT/FINANCE PHASE - A.W.A.R.E is the contracting entity and will call upon other team members for data, evaluation, specific contract provisions and commitments and other participation as required.
- (3) PERMITS/APPLICATION/APPROVALS PHASE - A.W.A.R.E and a locally hired consultant will be responsible for all applications and presentations to public and regulatory agencies requiring approval and will communicate conditions and terms of the permits to the design and operations team and other involved parties.
- (4) DESIGN/SPECIFICATION PHASE - The Design Phase of the project generally begins when the notice to proceed is received. An A.W.A.R.E Project Manager will be responsible for the management of detail design for the site and facility

construction. A.W.A.R.E will be responsible for the process design, specifications, procurement, and testing of the equipment. A.W.A.R.E will coordinate the civil, structural detail design efforts, selection of the General Contractor and all direct communication with the County.

- (5) CONSTRUCTION PHASE - The A.W.A.R.E team and a local consultant will complete all applicable Federal, State and local environmental and non-environmental permits and approvals necessary for the construction and operation of the facility and select a General Contractor. An A.W.A.R.E Project Manager will be responsible for management of the entire project during the construction phase. A.W.A.R.E will coordinate delivery and installation of the equipment with the A.W.A.R.E Project Manager, Reuter, Inc. and the General Contractor's Project Manager.
- (6) SHAKEDOWN/START-UP PHASE - A.W.A.R.E in conjunction with Reuter, Inc. will be responsible for the Shakedown/Start-Up Phase of the project. A.W.A.R.E will train operating management prior to this phase. A.W.A.R.E, Reuter and the General Contractor will deliver the facility to the operating entity upon successful completion of all operational testing requirements and plant acceptance by A.W.A.R.E.
- (7) OPERATIONS - An A.W.A.R.E owned entity will be responsible for operations and maintenance of the accepted facility, excluding any County designed and constructed site or project elements.



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